THE BUILDER
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VOL. CXLVIII FEBRUARY 15 1935. No. 4802

S. FRANCESCA ROMANA, ROME.

From a sketch by MR. HULME CHADWICK, A.R.C.A.

MEETINGS

FRIDAY, *February* 15.

London Society. The Rt. Hon. Sir Leslie Scott on "Abuses of Street Advertising." At 18, John-street, W.C.2. 5 p.m.

Birmingham and the Five Counties Architectural Association. Mr. H. V. Ashley on "The Masonic Peace Memorial."

Institution of Heating and Ventilating Engineers (London and District Branch). Mr A. Crd on "Hints on Making a Survey." At the Borough Polytechnic, S.E.1. 7 p.m.

Institution of Structural Engineers (Midland Counties Branch). Mr. A. H. Hancox on "Recent Developments in Self-indicating Testing Machines." At Birmingham. 6.30 p.m.

Norfolk and Norwich Association of Architects. General Meeting. At Curat House, Norwich. 5.30 p.m.

SATURDAY, *February* 16.

Institution of Structural Engineers (Western Counties Branch). Annual Branch Banquet. At the Royal Hotel, Bristol.

MONDAY, *February* 18.

Electric Light Manufacturers' Association. Mr. R. O. Sutherland on "Exterior Lighting of Buildings and their Town Planning Aspects." At 2, Savoy Hill, W.C.2. 7.30 p.m.

TUESDAY, *February* 19.

Reinforced Concrete Association. Mr. C. W. Glover on "The Sound Insulation of Reinforced Concrete Buildings." At 66, Portland-place, W.1. 6 p.m.

Institution of Civil Engineers. Professor F. G. Royal-Dawson on "Speed in Relation to Curvature, with Special Reference to Road-Curves"; and Mr. H. Criswell on "Aspects of Highway-Curve Design." 6 p.m.

Hampshire and Isle of Wight Architectural Association. Annual Dinner and Dance. At the South Western Hotel, Southampton.

WEDNESDAY, *February* 20.

Chartered Surveyors' Institution. Mr. Percy W. Lovell on "The Royal Palace of Whitehall." 8 p.m.

Institution of Civil Engineers. Mr. G. Wood on "The Design and Construction of the Reinforced-Concrete Gantries and Retaining Wall at Messrs. Stewarts & Lloyds' New Steelworks, Corby." 6.30 p.m.

Royal Society of Arts. Lt.-Col. J. D. Restler on "Water Supplies from Underground Sources." 8 p.m.

Liverpool Architectural Society. Professor Abercrombie on "Town Planning."

L.C.C. Central School of Arts and Crafts. Sir Banister Fletcher on "English Renaissance (1550-1900): Famous Jacobean Mansions." 6 p.m

THURSDAY, *February* 21.

Institution of Structural Engineers (Yorkshire Branch). Mr. C. W. Hamann on "The Earthquake Resistance of Structures." At the Hotel Metropole, Leeds. 7 p.m.

The Building Centre. Mr. H. L. Pirie on "The Application of Coal and Coal-burning Appliances to Modern Buildings." 8 p.m.

Society of Antiquaries. Mr. F. Cottrill on "Excavations at Witham, Essex, and recent Excavations in Roman London." 8.30 p.m.

FRIDAY, *February* 22.

Norfolk and Norwich Association of Architects. Messrs. C. H. James and Roland Pierce on "The New Norwich Municipal Buildings."

Institution of Mechanical Engineers. Annual General Meeting. 5.30 p.m.

Civil Engineering Society of the Glasgow Royal Technical College. Mr. F. A. B. Preston on "Town and Regional Planning: Engineering Considerations." 7.45 p.m.

MONDAY, *February* 25.

Royal Institute of British Architects. Social Evening. 8 p.m.

Goldsmiths' Company's Lectures. Mr. H. G. Murphy on "The Art of the Enameller." At the Goldsmiths' Hall, E.C.2. 7 p.m.

Institution of Mechanical Engineers. Mr. S. W. Lister on "Aspects of Workshop Costing." 6.45 p.m.

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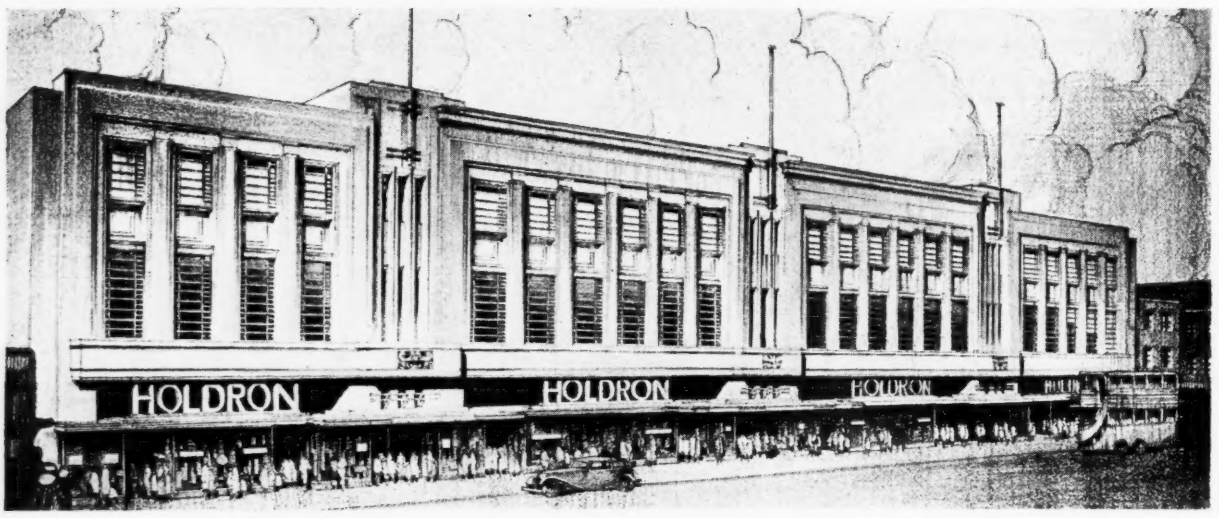

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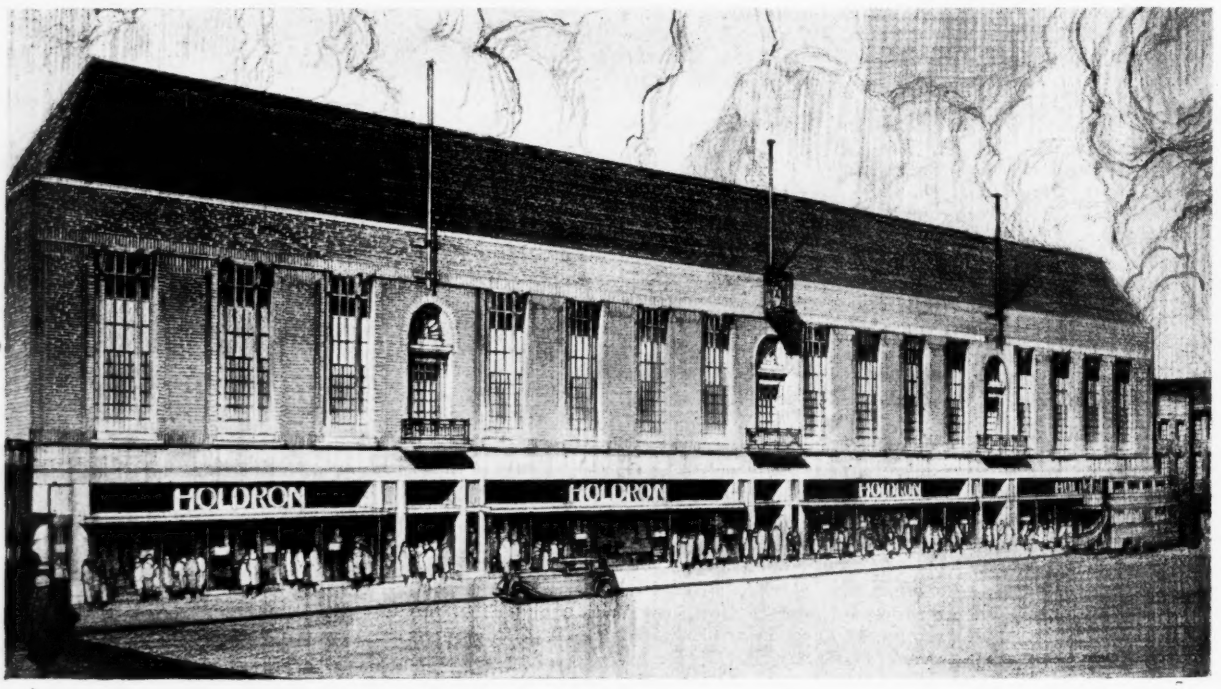

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DESIGNS FOR THE REBUILDING OF MESSRS. HOLDRON'S PREMISES, PECKHAM.

MESSRS. T. P. BENNETT, F.R.I.B.A., AND SON, Architects.

(See also pages 307 and 327.)

"STYLE"

THE word "Style" comes readily to mind when the subject of conversation is architecture, and it may have come somewhat as a shock to read in the President's inaugural address to the R.I.B.A. that "Style has no fundamental artistic quality." A good many of the most famous sayings of all times have been startling; in fact, the quality which surprises the mind out of the rut of accepted theory is often the chief component of spoken wisdom. From Sir Giles Scott we have learnt to expect common sense, and no saying of his can be lightly turned aside as something irresponsible or backed by insufficient thought.

We are all inclined to talk "Style," although we are outgrowing those little squabbles, which now seem so futile, concerned with the merits of different period styles in architectural history. In their time these matters assumed vast proportions in the minds of architects, and of those interested in architecture. Now we realise more fully that the merit which expressed itself in a certain style in, say, the 13th century, could not express itself in the same terms in the 18th, and that it is useless to compare the two expressions as things of free choice. But to-day we seem merely to have exchanged the historical periods for those of more recent history. We talk somewhat glibly of "modernism" and "traditionalism," as though these were distinct expressions of the building process of to-day. It is this rather irritating interpretation of the word "Style," no doubt, which called forth the timely challenge of Sir Giles Scott, and we venture to think that he would agree that there is a more real and useful significance to the term if we used it in its true meaning.

Style seems to us to denote a certain consistency in expression. The element of consistency is of great importance to design in its capacity for making the expression of a building intelligible. Terms which are to read must be, if not in a familiar language, at least in a language which can be understood. We have this same necessity in all the arts. Music cannot ignore the element of tunefulness. Literature must respect the rules of English grammar. Painting and sculpture, in their most decorative terms, must express some element of realism. And so there are certain things which must be respected in the design of architectural units. A portal must declare itself as an entrance. The window must appear what it is, and not merge itself into some irrelevant part of the building.

We cannot help feeling that if we rule out the word "Style" entirely we are at a loss to find one to fit this definite form of expression. No doubt some such meaning was attached to the word "quality," which Sir Giles used as applying to something much more fundamental than the more ordinary use of "Style." Yet we cannot feel satisfied that this other word can quite fulfil the meaning which we still demand for the more familiar term.

It seems to us that style itself demands a quality. We talk lightly of things being "stylish." Sometimes we mean no more by this than that a thing is in the fashion of the moment—that everybody is doing it, or, rather, that everybody who "counts" is doing it. But sometimes, though less often, possibly, we mean far more than this. We mean that there is some subtle satisfaction in the way an appearance is achieved—and something rather more defined than a mere degree of quality. We may suppose, for instance, that the style of a runner would be much the same in the Roman arena as in the modern stadium; thereby implying that a style of running has some fundamental aim of efficiency about it which is above century and race. May we not equally feel that there is a fundamental style to apply to the exercise of building? This may seem a quibble upon a few words, but so long as language remains the means whereby we may understand each other, the introspection seems justified. If we are to use words in common, we must be sure that we are applying a common meaning to them; nor must we allow the meaning of a good word to become so debased as to render it meaningless.

We are, at any rate, agreed that we shall no longer waste valuable energy in an effort to translate style in terms of faithful period reproduction. Our designers are no longer worried by that determination to be "correct" at all costs, which often bemused the Victorians. But let us not at the other extreme deny the necessity of seeking style in its fullest and best meaning. There are many qualities which go to make up the fulfilment of style in design, and they are qualities which no architect can ignore. The chief of them is, as we have suggested, consistency, which is a prime factor in all successful human effort. It was no doubt the extreme "correctness" of the Victorians that produced that essential element in some of the great works achieved in that little-appreciated period. It is the same element that we find by less-mannered means in the best work of to-day.

The answer to that oft-repeated question: "What style is it in?" can only be given in terms of "good," "bad," or "indifferent." A reply in terms of the date of a period is no answer, and merely confusing the architectural issue. Nor can we usefully reply "up-to-date" or "old-fashioned," which are the real implications of "modern" or "traditional."

The President's remarks about a word which has lost caste through misuse is timely if it serves to limit profitless speculation upon popular fashions. In spirit we are entirely with him, and deplore the division into camps which the profession seems doomed to suffer. The fact that we still venture to cling to the word he has discarded represents no difference in opinion upon this point. It means only that there may be some danger if the President's words are interpreted as meaning something entirely different—that there is no need for a generation of architects to speak a similar language, or develop similar means of self-expression. Some may take this pronouncement as a blank cheque, to be filled in as the payee may wish with strange, self-advertising figures; in fact, just the reverse of those qualities which the President sees in the new R.I.B.A. building, which he would wish to see observed consistently in the work of the day, whatever the tricks of fashion.

Let us lay our heads together to give the word "Style" its true meaning as a real contribution to a communal effort. Then we may use it again with a meaning for which it was intended.

NOTES

The Royal Gold Medal for Architecture

At a Council meeting of the R.I.B.A., on February 11, Mr. Willem Marinus Dudok, Honorary Corresponding Member of the R.I.B.A. (Holland), was elected by the members, and his name will be submitted to His Majesty the King as a fit recipient of the Royal Gold Medal for Architecture for the year 1935. The Medal was presented last year to Mr. H. V. Lanchester, F.R.I.B.A.

R.I.B.A. Exhibition of Books and Designs.

It is not possible to enumerate the many old manuscript books, drawings and other items of interest on view at this exhibition, opened by Sir Frederic Kenyon on Monday. We can only draw attention to them. But we believe that those who are sufficiently interested to pay the exhibition a visit, will be surprised to find that the Institute possesses such a fine collection of books, drawings, and water-colour sketches, etc., now seen to advantage (probably for the first time), in the Henry Florence Memorial Hall. No fewer than 344 exhibits are catalogued, and from this the magnitude of the exhibition may be gauged. More important, the quality and the range of the subjects are of a high standard.

Designs and Drawings at the Exhibition.

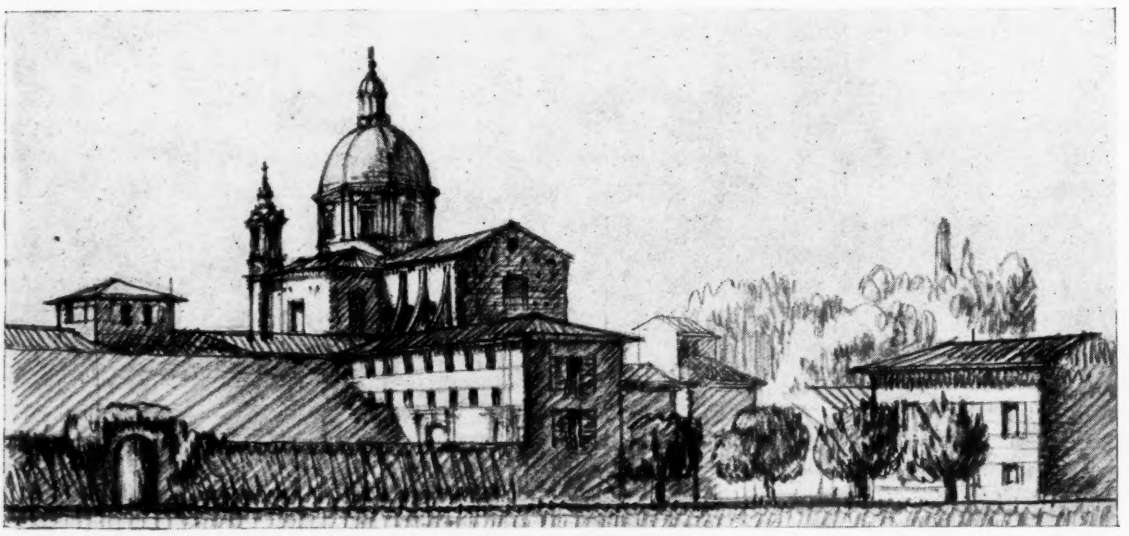
Design and draughtsmanship, especially the former, make an interesting comparison with much of the work of to-day. This is particularly noticeable in the church architecture, of which fine examples are on the screens. Compared with some of the recently-completed churches, the older ones appear to possess a multiplicity of detail which is too much for the eye to absorb, whereas the present-day church designs rely on impressive massing, fine proportion and a sparing use of decoration or sculpture, which is usually well placed. In addition, effective lighting is a feature, by the use of which to-day fine and striking results are obtainable. Norman Shaw's "The English Church, Lyon," No. 206, an ink perspective drawn by Shaw, is of much interest in design and draughtsmanship, the whole denoting knowledge of detail. The perspective is delineated with a masterly precision. No. 201, "The Church of St. Augustine, Kilburn," by John L. Pearson, R.A., is a fine example of this architect's work, shown by a coloured perspective looking east. Among other churches, that by James Brooks, No. 198, "St. Andrew's, Plaistow"; examples by G. E. Street, R.A.; P. C. Hardwick's St. Columbia's College, Ireland (finely grouped and shown by a bird's-eye view which appears to have a perfect setting), are to be noted. Among the examples of domestic work we find typical examples by Robert Adam, Thomas Hardwick, Norman Shaw, Philip Webb, and others who, in their day, had their admirers, followers and imitators. Conclusion cannot be reached without drawing attention to the water-colours, sketches in pen and ink, and pencil work of such men as Sir Ernest George, R.A., W. R. Lethaby, C. E. Mallows, William Burges, A.R.A., that master, Alfred Stevens, and many others, all leaders in their respective styles and mediums.

Municipal Buildings.

The comprehensive paper on "The Planning of Municipal Buildings," read by Mr. Percy Thomas at a meeting of the R.I.B.A. on Monday evening, and reported in this issue, should be of great value to all—whether architects or municipal authorities — concerned with the erection of such buildings. Mr. Thomas described very clearly their essentials, and indicated various practical approaches to the planning problem. Though not, perhaps, the most difficult among the varied classes of building that an architect is called upon to design, municipal buildings are certainly among the most prominent and, in view of their close association with communal life, they offer a good opportunity for demonstrating to the public the value of good architectural design. That a civic consciousness is growing in this country is evident from the many schemes of municipal buildings, and civic centres carried to completion during recent years, and at present either in hand or projected. The movement is one that should be fostered as much as possible, for a good building sets a standard that stimulates emulation, often resulting in a marked architectural improvement in general building developments.

The Royal Academy Exhibition.

The letter of Mr. Frank Pick (who is so honourably associated with the great improvement in industrial advertising on the Underground Railway) which appears in a contemporary leaves us hesitating whether his own doubts are much less than our own in regard to the present exhibition at the Royal Academy. We could share the writer's feeling of regret at the criticism and want of sympathy of which he speaks, if there were not such serious cause for it. What not a few are asking is why the Royal Academy, if it had not already travelled so far from the objects for which it was originally formed, took over the fathering of this exhibition, sitting in council on soaps and wedding-cakes, instead of leaving the trade exhibition to conduct itself. Making themselves responsible for this over-upholstered display, they have thus become the guardians of it. Surely it would have been better if the Royal Academy, content with lending the galleries, had stood aside, leaving the trade to conduct its own show, in which case it should have been opened free to the public, its object being that of giving a push to trade. When the writer of the letter tells us that "the Royal



CHURCH OF S. FREDIANO, FLORENCE.
From a Sketch by MR. HULME CHADWICK, A.R.C.A.

Academy has made a considerable advance towards industry" in this exhibition, having fostered for years a rather pedestrian sort of artistry, perhaps this advance was only natural. But British Art in Industry is far from being the same thing as Industrial Art, as the writer very truly suggests.

Bringing in the Artist

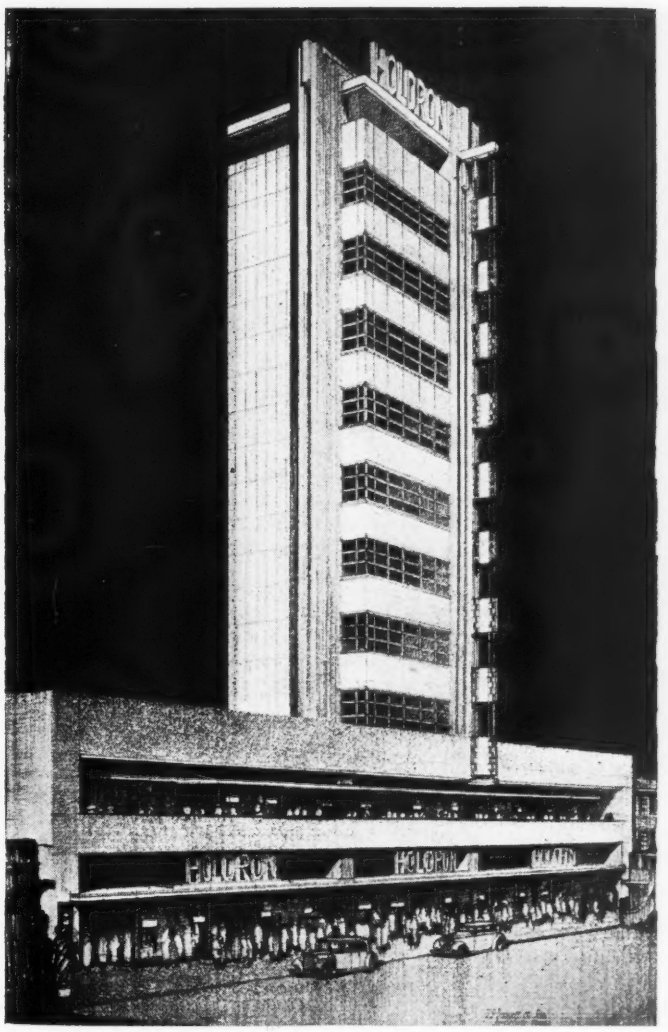
WHAT is the prevailing recipe for this restoration of art to industry, as it is manifested to us in this exhibition, apart from a general level of display equally to be seen in the shops? It is surely to commission one or two very well known artists to design for carpets or pottery, as the case may be, regardless of any knowledge of the traditions, methods, and suitability of design. Such is the belief in the hypnotism of names that this exhibition is largely a catalogue of the famous. If we look into the actual working of industrial production, the obscure, the real designer, is largely still at the mercy of the travellers who advise as to what is most marketable, and therefore best for trade.

The Problem of Industrial Art

THE attitude to art is much the same as the ideals of people who oppose war but neglect to alter the conditions which inevitably lead to it. So in our desire for art in industry—and who would not desire it?—we forget to ask ourselves why the arts came out of industry. Is there any remedy in beliefs which continue to ignore the fact that beauty emerges naturally, within and through wisely directed production, and that the endeavour to introduce it from outside, without altering the conditions and outlook which led to its decay, however well intended, is doomed to failure? When Mr. Pick tells us to look forward "from the present exhibition to another not far ahead," does he remember that we have been endeavouring for more than half-a-century, through organisation, exhibitions, propaganda and by publicity widely extended to promote this desired union, and that art still obstinately refuses to be "united"? If we could look a little deeper unto the causes of this divorce, the unreality of so much of our effort might then become manifest, directing us to better results.

Waterloo Bridge.

THE elaborate preparations which have been made for the demolition of the arches of Waterloo Bridge are described elsewhere in this issue. In effect, it has been found necessary, in order to avoid interference with river traffic and to ensure public safety, to build a new steel bridge over the old masonry structure. The manner in which the arches will be "nibbled" away, once the suspended centering is in position, is extremely ingenious, and the engineers are entitled to our admiration for their fertility of resource in dealing with a difficult problem. We cannot but feel, however, even at this late hour, a sense of regret that all these elaborate and costly preparations should be necessary, and a great historic bridge should have to be demolished, merely because of the failure of the foundations of one of its piers. That pier may yet be regarded as the first cause of a future traffic chaos infinitely worse than anything we know to-day.



DESIGN "D" FOR THE REBUILDING OF MESSRS. HOLDRON'S PREMISES, PECKHAM.
MESSRS. T. P. BENNETT, F.R.I.B.A., AND SON, Architects.
(See pages 304 and 327.)

The Housing Bill and Tenements.

THE Housing Bill now before Parliament has, on the whole, had a good reception, but in any measure of this kind there are bound to be differences of opinion in regard to proposals which in some measure are directed to effects rather than to causes. In a letter to *The Times* last week, Mr. Barry Parker makes some pertinent observations in reference to the encouragement in the Housing Bill "given to the building of tenements in preference to the building of cottages." The tendency of manufacturers to-day is to build their works out of towns, "the chief deterrent" to this being the lack of dwelling accommodation for workpeople near the works, and, as Mr. Parker says: "When tenements are built on central sites land values are increased, and the increased values go to landowners, and the greater part of any subsidy provided either by the State or the local authority goes to landowners. When slums are demolished and workmen's dwellings are built outside the towns this tends to leave more land inside the towns available for other purposes, and therefore tends to lower land values in the towns. Should we not carefully examine proposals which will result in subsidies going to ground landlords before we accept them? The proposal now before Parliament seems to be that the poorer paid workers should be housed in tenements in the centres of towns, that they may be near their work, and the manufacturers be left unable to establish works outside the towns because provision has been made for housing their workpeople inside the towns. Additional considerations are the increase in traffic difficulties, congestion, and danger resulting from the building of tenements in towns, and the relative merits of tenements and cottages as workers' homes. Investigations reveal that with developed land at anything up to £3,000 an acre 12 cottages to the acre are costing less than are 40 tenement dwellings to the acre, and yet local authorities are in this Bill given greater encouragement to build tenements than they are to build cottages."

GENERAL NEWS

Professional Announcement.

Mr. W. David Hartley, F.R.I.B.A., and Mr. E. G. Vinan Hives have transferred their Reading office to No. 12, Cross-street (Reading 2768), and will be pleased to receive trade catalogues.

An Architect's Estate.

Sir Harold Brakspear, K.C.V.O., of Corsham, architect, who died on November 20, aged 64, left estate of the gross value of £10,843, with net personalty £9,576.

An R.A. Election.

At a General Assembly of Academicians and Associates of the Royal Academy of Arts held on Tuesday, Mr. Walter John Tapper, A.R.A., P.-P.R.I.B.A., was elected a Royal Academician.

An Appointment.

Mr. Stanley Ripley, A.R.I.B.A., Headingley, Leeds, has been appointed architect to the Prescot (Lancashire) Urban Council. One of his first duties will be to design a new Town Hall.

Appointment Vacant.

A temporary architectural assistant is required by the Borough of Sutton and Cheam. Applicants must be chartered or registered architects. Salary, £260. Applications by February 23 to Mr. N. H. Mitchell, Borough Engineer and Surveyor, Municipal Offices, High-street, Sutton.

Royal Academy Summer Exhibition.

The Royal Academy Summer Exhibition opens on Monday, May 6. Friday, March 29, is the day for receiving water-colours, etc., and architectural drawings; Saturday, March 30, and Monday, April 1, for oil paintings; Tuesday, April 2, for sculpture. The hours for the reception of works are 8 a.m. to 10 p.m., except Saturday, 8 a.m. to 2 p.m. Labels and forms can be obtained (during March only) from the Secretary, Royal Academy of Arts, Piccadilly, W.1, on receipt on a stamped and addressed envelope.

Employment Among Technical Men.

Rationalisation of industry and restrictions in output of commodities have sprung an almost entirely new problem on the social fabric—widespread unemployment amongst men of high technical and commercial attainments. The Institute of British Executives, in a brochure, issued from 133, Oxford-street, W.1, describe how this Institute came into being, and what efforts are being made to alleviate this new form of distress. Despite persistent trade depression, posts have been found for members at the rate of about two a week, at salaries ranging from £150 to £1,000 per annum. This result has only been made possible by the encouragement the Institute has received from employers all over the country, who now number over 900. H.R.H. the Prince of Wales has interested himself in the work being done by the Society, and during a recent visit to the Society's club room and offices, said: "I wish the society every success in its endeavour to find work for its members, and hope that all men of the executive class, whether employed or unemployed, will assist in this very necessary work. I have no hesitation in suggesting that employers should aid the society by every possible means, particularly by referring all vacancies on their executive and technical staffs to the society." The two principal activities of the society are its club room and its employment bureau. The club room is of great value in giving men of administrative, executive and technical experience a place where they can meet each other and keep in touch with their professions. In the employment bureau the qualifications and experience of every member are analysed and indexed in such a manner that the right man can be found at a moment's notice for any vacancy which occurs. There are two branches, technical and non-technical, each under the control of a specialist.

R.I.B.A. MINUTES

Following are notes from the Minutes of the Council proceedings for January 14:—

New Presidential Chain.—The cordial thanks of the Council were conveyed to the President for his generous gift of a new Presidential chain.

Architects and Housing Work.—On the recommendation of the Public Relations Committee it was decided to submit a memorial to the Minister of Health pointing out that, following upon the speech of the Prince of Wales at the centenary banquet, the architectural profession was ready and waiting to assist in the national service in the matter of housing and slum clearance, and urging that proper use should be made of the knowledge, training and experience of the profession.

Gift from Danish Honorary Corresponding Members.—The cordial thanks of the Council were sent to Commendatore Carl Brummer, Mr. Christen Emanuel Monberg, and Mr. Aage Rafn, for the beautiful vase which they have presented to the Institute as a centenary gift.

London Building Act, 1930: Tribunal of Appeal.—Sir Banister (Flight) Fletcher (Past President) was reappointed as a member of the Tribunal of Appeal.

Aerodromes Advisory Board.—Mr. Maurice E. Webb, F.R.I.B.A., and Mr. John Dower, A.R.I.B.A., were appointed as the R.I.B.A. representatives on the Aerodromes Advisory Board for the year 1935.

Royal Sanitary Institute and Sanitary Inspectors' Examination Joint Board.—Mr. Alan E. Munby, F.R.I.B.A., was appointed to represent the R.I.B.A. on this Joint Board.

COMPETITION NEWS

Elementary School, Wyken, Coventry.

Mr. A. C. Bunch, F.R.I.B.A., assessor in the competition for a new elementary school, Wyken, for the Coventry Education Committee, has made the following award:—1st, Mr. A. H. Gardner, A.R.I.B.A., 16, Priory-row, Coventry; 2nd, Mr. R. Hellberg, A.R.I.B.A., 13, Queen Victoria-road, Coventry; 3rd, Messrs. Parker and Plowman.

Municipal Offices, Birmingham.

The General Purposes Committee of Birmingham Corporation invite architects of British nationality practising in the British Isles to submit designs for the building of municipal offices, Birmingham. Premiums of £1,000, £600, £400 and £250. Sir Reginald Blomfield, R.A., P.-P.R.I.B.A., has been appointed assessor. Conditions may be obtained, upon deposit of £3 3s., from Mr. Herbert H. Humphries, M.Inst.C.E., City Engineer and Surveyor, Council House, Birmingham. Designs are returnable by June 28.

Police Station, etc., Bishopsgate, E.C.

The Corporation of the City of London invite architects whose principal office is within the City of London or the area of the Metropolitan Police area, to submit designs in competition for a new police station, dwellings and hospital in Bishopsgate. The assessor is Mr. H. Austen Hall, F.R.I.B.A., and premiums of £250, £100 and £50 are offered. Designs must be sent in by May 31. Conditions from the Town Clerk, Guildhall, E.C.2, on deposit of £1 1s.

Central College Buildings, Birmingham.

The Birmingham Education Committee propose to erect on a central site premises for the Central Technical College, the Commercial College, and the Central School of Arts and Crafts and it has been decided to obtain designs in competition. The President of the R.I.B.A. has nominated Mr. J. R. Adamson, F.R.I.B.A, to act as assessor. No conditions yet available.

Hospital Extensions, Coventry.

The Committee of Management of the Coventry and Warwickshire Hospital are promoting a limited competition for alterations and extensions to the hospital. Mr. S. N. Cooke, F.R.I.B.A., has been appointed assessor, and those invited to compete are: Messrs. Armstrong and Gardner (Coventry), Messrs. Buckland and Haywood (Birmingham), Messrs. Elcock and Sutcliffe (London), Messrs. Martin and Martin and W. H. Ward (Birmingham), Mr. T. R. J. Meakin (Coventry), Messrs. W. A. Pite, Son and Fairweather (London).

Shop Front Competition.

Messrs. Lennards, Ltd., boot and shoe manufacturers, invite young architects, assistants and any other persons having architectural experience to submit designs for new shop fronts and re-casting old ones. The promoters of the competition desire "an entirely fresh approach to the problem, without freakishness or excessive modernity." Over 200 branches are concerned, and full particulars may be obtained from Estates Department, Lennards, Ltd., Queen's-road, Bristol, 8. The approved design (if any) will be awarded a prize of £100.

New Grammar School, East Barnet.

Sir Felix Clay, Bart., M.A., F.R.I.B.A., the assessor in this limited competition for the Hertfordshire C.C., has placed first the design of Mr. W. F. Granger, F.R.I.B.A. (of Messrs. Leathart and Granger). The winning design is illustrated in this issue.

CURRENT COMPETITIONS

	Particulars published in "Builder."	Sending in date.
Branch library, West Humberstone, for Leicester T.C. Limited to Leicester architects. Mr. H. A. Gold, assessor. Premiums: £75, £50 and £25	Jan. 4	Feb. 28
Municipal offices, etc., Wembley. Premiums: £300, £250, £150 and £100. Mr. Stanley Hamp, F.R.I.B.A., assessor. Conditions from the Clerk, Council Offices, Wembley. Dep. £1 1s.	Dec. 7	March 1
Sanatorium, Glenlomond, for Fife and Kinross Joint Board. Competitions confined to Fife architects. Premiums: £80, £40 and £20. Mr. James Lochhead, F.R.I.B.A., assessor	Jan. 25	March 11
Town centre, Darlington, for T.C. Mr. H. V. Lanchester, F.R.I.B.A., assessor. Six architects selected for limited competition. Premiums of £100, £75 and £50	Dec. 28	March 14
Extensions, Sheffield University. Six architects selected. Mr. W. C. Fenton, F.R.I.B.A., Sheffield, assessor	Jan. 25	March 15.
Cemetery chapel and buildings, Gloucester. Competition confined to Wessex Society of Architects. Mr. Edward Maufe, F.R.I.B.A., assessor. Premiums: 125 gns. and 100 gns. Plans to Mr. C. J. Scudmore, 21, Eastgate-street, Gloucester	Jan. 4	March 27
Monument in Cornish granite, for Cornish Quarry Masters' Assn. Prize, £50. Jury of assessors	Feb. 1	April 8
Laying-out an area of Central Croydon as extension of the Civic Centre. Dr. T. Adams, F.R.I.B.A., assessor. Premiums of £500 and £350. Conditions, dep. £1 1s., from Town Clerk, Town Hall, Croydon	Nov. 9	April 30
Police station, dwellings and hospital, Bishopsgate, for City Corporation. Mr. H. Austen Hall, F.R.I.B.A., assessor. Premiums: £250, £100 and £50	Feb. 15	May 31
Municipal offices, Birmingham, for T.C. Open to British architects. Premiums: £1,000, £600, £400 and £250. Sir R. Blomfield, R.A., assessor. Conditions (dep. £3 3s.) from Mr. H. H. Humphries, Council House	Feb. 15	June 28
Technical college, Bolton, estimated to cost £70,000. Messrs. Bradshaw Gass & Hope, FF.R.I.B.A., assessors. No conditions yet available	Oct. 5	—
For 74 flats on Glebe-place site, for Stoke Newington B.C. Six firms of architects have been selected. Mr. Robert Lowry, F.R.I.B.A., assessor. The scheme is postponed temporarily	July 13	—

CORRESPONDENCE

Registration.

SIR,—The attention of the Architects' Registration Council of the United Kingdom has been directed to the use by a number of registered architects of the description "Registered Architect and Surveyor," implying that the user is registered both as an architect and as a surveyor. In the United Kingdom there is no Act in being for the statutory registration of surveyors, and in cases where a registered architect practises as a surveyor also he should use the description "Registered Architect. Surveyor."

J. R. THOMAS, Acting Registrar,
Architects' Registration Council of the United Kingdom.
Westminster, S.W.1

The Future of Brook Green.

SIR,—In reply to the letter of Sir Brumwell Thomas, all that need be said is that the Act of Parliament of 1881 definitely prohibits the erection of any building of any description upon Brook Green except such lodges or other structures as may be necessary for its maintenance or management.

No one can say that these conditions are fulfilled by the proposal to erect a town hall right across the centre of it.

PERCY W. LOVELL,
Organising Secretary,
The London Society.

SIR,—The "Save Brook Green" Committee have read with considerable interest the letter from Sir Brumwell Thomas published in your paper of Friday, the 8th instant, and we trust that you will be good enough to publish this letter, which replies to various points raised by him.

The Committee are most interested to note that Sir Brumwell states quite definitely that no trees would be sacrificed if the new Town Hall be built in the middle of Brook Green. We note that the fine avenue of trees running through the Green is not to be disturbed. Sir Brumwell does not mention the golden ash trees which adjoin the tennis courts on the east side; it is difficult to appreciate how these or any other of those trees within outstretched arms' length of the tennis courts could possibly be saved if Sir Brumwell's proposal be carried into effect.

Sir Brumwell states categorically that "the present children's playground to the east of the tennis courts would not have to be reduced in area." Surely Sir Brumwell has overlooked the letter written by the Town Clerk of Hammersmith on December 21, 1934, to the General Secretary of the National Playing Fields Association? In this letter it was stated by the Town Clerk that the proposal was "to exchange the site owned by the Council on the south side of Brook Green for the site of the tennis courts in the middle of Brook Green, with suitable extensions on the east and west sides, so as to make the total area approximately equivalent to the site which the Borough Council are giving up." But presumably Sir Brumwell is better informed than the Town Clerk.

We note with satisfaction how Sir Brumwell makes allowance for the misunderstanding of the lay public, in which, we may suppose, he includes the Borough Councillors, who, after consideration, have recommended that the scheme be withdrawn; let us add, also, certain of Sir Brumwell Thomas's fellow-members of the London Society and some of his brother architects.

But he then attacks Mr. Percy Lovell, Organising Secretary of the London Society, accusing him of discourtesy, in that he did not consult with Sir Brumwell before writing to the Press. Mr. Lovell must answer for himself, but seeing that the London Society concerns itself with all London Town Planning Schemes, it seems to us that it would have been better had Sir Brumwell consulted with Mr. Lovell before setting out for his raid upon one of London's open spaces.

Sir Brumwell goes on to state that "the Hammersmith Borough Council had paid about £35,000 for their site, which is nearly an acre in extent, and that this was to have been given up to the public in exchange for the hard tennis courts surrounded," as Sir Brumwell says, "by a high and unsightly iron and wire netting enclosure, which now occupy about an acre at the centre of the Green." Surely there is something wrong here? In case Sir Brumwell has not measured up the tennis courts, we should like him to know that the area of the courts as enclosed by the unsightly iron and wire netting is exactly 2,467 square yards—just over half an acre. This is the area which Sir Brumwell suggests is "about an acre."

Sir Brumwell next approaches the matter on town planning grounds and suggests that it can be said with authority that the preservation of open spaces and the siting of public buildings are two equally important considerations. We presume that Sir Brumwell is the authority referred to in this paragraph, or perhaps my Committee are so ill-informed that they have overlooked any other authority which would suggest that a small open space in a very crowded area should be destroyed in order that the building of a Town Hall should be allowed thereon.

Further, Sir Brumwell states that "the London County Council is to proceed at once to town plan the whole area of London . . .; it is unfortunate that, with these fine ideals, an important local town planning proposal should fail." The underlying suggestion in this reference by Sir Brumwell is that Brook Green will be included in the London County Council's proposal to town plan London. Sir Brumwell must be aware that Brook Green is already included in the Kensington and Brook Green Town Planning Scheme No. 14, which scheme has reached stage R.A., thereby indicating that a resolution deciding to prepare a scheme has become effective.

In this scheme all the land on the south side of Brook Green between Brook Green-road and Rowan-road is scheduled for dwelling-houses, municipal offices and buildings, and educational buildings. Brook Green itself is shown on the deposited maps as an existing open space. These are the town planning proposals of the London County Council with respect to Brook Green.

My Committee are wondering to whom Sir Brumwell is referring when he regrets that "a not sufficiently informed local interest should threaten to delay the whole matter by appeal to the Courts for a judicial interpretation of a certain few words by which Brook Green is secured to the public." It cannot be to this Committee that he is referring, because no statement has been made as to what their future action would have been had the Council in Committee not decided to rescind their proposal of December 19 to build the Town Hall on the middle of Brook Green instead of on the site they acquired for the purpose on the south side of the Green. We who were living in the year 1914 must needs add that the contempt here shown for the "certain few words" which should protect our rights recall the like scorn for a certain "scrap of paper."

This Committee have noted with interest Sir Brumwell's reference to the six acres of playing fields of the St. Paul's Girls' School and to his suggestion that "the transfer of the Town Hall to the tennis courts site would have avoided separating Brook Green, with its 3½ acres, from this larger area of open space, which in time to come might possibly provide a continuous open space with a total area of about 10 acres." Sir Brumwell must be aware that if at any time the Council acquired these six acres of playing fields for the purpose of an open space, they would also have to acquire Bute House, which belongs to St. Paul's Girls' School, and there would then be a frontage of 57 yards abutting on to Brook Green, which would allow for the continuous open space which Sir Brumwell, with his keen eye for open spaces, visualises.

Should the Council purchase all the six acres of playing fields, it is reasonable to assume that the price would be on the same scale as that paid for the existing site: it would then amount to no less than £261,360!

My Committee remark that no personal consideration has been involved in Sir Brumwell's suggestion for the building of the Town Hall in the centre of Brook Green; they also note that it is an architect's first thought and his first duty to bring to the attention of the authority concerned in the lay-out of a public building what he considers to be the proper "siting" of the building. It would be interesting to hear how long it took Sir Brumwell, after his appointment as architect to the Council, to realise that Brook Green itself was the best site for the Town Hall. But now, following his fancy, it seems certain that, were Kensington seeking to build a new Town Hall, the right and proper site for it would be in Kensington Gardens.

We have endeavoured to meet Sir Brumwell's case point by point. It is impossible that we should ever agree with him in the matter of the right treatment of a London open space. Sir Brumwell as a town planner must needs town plan it—which means that he would build there. But we and our ill-informed Hammersmith neighbours would rather leave it alone.

HILDA BARRON,
Chairman and Hon. Secretary,
"Save Brook Green" Committee.

Salaries of Assistants.

SIR,—I cannot quite understand Mr. Reeves's complaint. The Finsbury Council offer only £156 per annum; they will therefore probably only get an assistant worth £156 per annum. A man worth more would not offer his services, as he could get more elsewhere.

L. A. CULLIFORD.

London, W.C.1.

*** Our correspondent appears to overlook the effect of an overcrowded market.—ED.

Estimating and Cut Prices.

SIR,—"Builder's Estimator" gets to the crux of this matter when he says:—"We see around us evidence of the result of low-priced work, some of which would have made builders of a generation ago shudder." I also am an estimator of long experience, and frequently, after work has been completed for which I have prepared an unsuccessful tender, I visit and inspect the completed job. In some cases it is astonishing to find what a large difference there is between the quality of the work as specified and that accepted.

To my mind this is largely due to the fact that architects do not receive in the schools that practical training that was given them under the pupilage system. Another cause of poor quality work is that mobility has deprived the local builder of the advantage he had when tendering for work in his own neighbourhood. When builders lived closer to the jobs they carried out, they were necessarily more careful of their local reputation.

R. E.

Brixham Post Office.

In connection with this work, illustrated in our issue for January 25, Mr. H. E. Seccombe, A.R.I.B.A., of H.M. Office of Works, writes to point out that Mr. A. Bulloch, F.R.I.B.A., prepared the original design, and his name should have been associated in the attribution of the work.

An A.A. Exhibition.

An exhibition of executed works by students, past-students and teaching staff of the Architectural Association is to be held in the galleries of the R.I.B.A. from April 29 to May 24. All post-war students, and members of the teaching staff, are invited to send photographs of executed work which has been completed since 1920. Such executed work may include decoration, furniture, and craftsmanship. Small photographs are asked for in the first case for consideration by the selection committee. Work shown at the last exhibition held in 1932 is not eligible. All preliminary photographs must be submitted by February 28, and should be addressed to the Secretary, A.A., 36, Bedford-square, W.C.1.

THE PLANNING OF MUNICIPAL BUILDINGS.

A PAPER on "The Planning of Municipal Buildings" was read by Mr. Percy Thomas, O.B.E., F.R.I.B.A., at a meeting of the R.I.B.A., held on Monday evening at 66, Portland-place, W., when the chair was occupied by Mr. John Begg, Vice-President. After some general introductory remarks, the lecturer came to a detailed consideration of his subject.

Site.

In very many cases, he said, the site for municipal buildings was decided upon before the architect was consulted. Its selection depended upon many considerations other than those of being appropriate from an architectural point of view. The recent powers given to local authorities to plan developed areas should considerably help in securing better and more spacious sites than in the past. In a few cases the architect had been called upon to replan the centre of a town and allocate sites for the various public buildings. Croydon and Darlington were two recent examples of that procedure, which might very well be followed by other municipalities.

Civic buildings should, wherever possible, be well set back from the surrounding roads, with a spacious forecourt laid out in a manner suitable to the district. Apart from architectural reasons, the provision of a forecourt provided adequate parking space and ensured the necessary quietude for the offices, etc. The more open space that could be provided around the buildings the better would be the result.

Smaller Municipal Buildings.

A study of the plans of the smaller type of municipal buildings revealed the fact that almost a standard type of plan had been developed. That usually consisted of the arrangement of the various departments on two or more floors grouped around two courtyards, with the council chamber at the rear on the first floor, and the rates office below the council chamber, the staircase being between the courtyards.

The main entrance in buildings of that type should suffice for all purposes except possibly a clinic or public assistance department. It was the custom some years ago to reserve the main entrance for ceremonial occasions, and provide side entrances for ordinary everyday use. He thought, however, the tendency now was to use the main entrance for all purposes. He believed from a psychological point of view the principle was very sound. If the architecture was to have any effect upon the civic pride of the citizens, the more they used the entrance hall and grand staircase the better.

With regard to the disposition of the various departments, there were a few definite rules to be observed. For instance, the rates office, being the one most used by the public, should be on the ground floor and near the main entrance. The town clerk's department should be in close proximity to the council suite, while the borough surveyor or engineer was usually on an upper floor, so that good light was obtained for his drawing offices. It should be remembered that a large number of people visited the surveyor's department for the inspection of plans and other purposes, and a staircase convenient to that department, with easy access from the street, was desirable.

Apart from the various corporation departments, there was what might be termed the council suite, consisting of the council chamber, committee rooms, reception room and mayor's suite. The number and extent of those rooms depended, of course, upon the size and importance of the building, and varied from the council chamber, with one or two committee rooms and a chairman's room, to five or six committee rooms, consultation rooms, members' common room, robing and reception rooms, mayor and mayoress's parlours, and a luncheon room. These rooms were usually grouped together on the first floor near the head of the main staircase, and should be so planned that the corridor which served them was not used for ordinary intercommunication between departments.

There was another type of building (he was glad to say, not a very common one) where the municipal offices were combined with business premises, but as the shopping portion of the scheme depended entirely upon local circumstances, and the municipal buildings followed the same principles as other types, he did not propose to deal further with them except to say that, however well designed they might be, he considered they must inevitably lack the sense of dignity which civic buildings should possess.

Civic Centres.

In the larger municipal buildings, or civic centres, as they were now more often called, other buildings were combined with the municipal buildings, either to form one complete building or a group of buildings. These might consist of an assembly hall, law courts, police and fire station, library, and sometimes a museum and art gallery. Examples of that type were Cardiff, Southampton, Stretford, Tunbridge Wells, Swinton and Swansea. Cardiff and Clacton were examples of the type where the municipal buildings and assembly hall were combined in one building. The disadvantage of that arrangement was that it was difficult to use the hall independently (a condition which was now generally required), not only because of difficulties of circulation, but of disturbance to the offices if the hall was used during business hours. A better arrangement was illustrated by the examples at Worthing and Wimbledon, where the hall was at the rear of the municipal offices, although near enough to be used in conjunction with them on civic occasions.

Municipal authorities usually required that there should be a convenient and dignified approach from the council suite to the assembly hall, and this was not an easy matter, as the council suite was usually on the first floor and the assembly hall on the ground floor. A convenient arrangement was to provide a luncheon or reception room as a connecting link, which could be used by either municipal buildings or hall as required, as at Southampton, Swansea and Worthing. An alternative way was to have the connection on the first floor to the gallery or foyer of the assembly hall, a good example of which was found at Wimbledon.

Where law courts or other buildings were included, they might either be grouped round a central courtyard, as at Swansea, or arranged as separate buildings facing a common open space, as at Tunbridge Wells, Walthamstow, Swinton and Stretford, whilst another variety was at Southampton, where the architect had adopted a very ingenious arrangement of making the assembly hall the centre, with the other units on the axes.

A factor sometimes governing the disposition of the units in a building of that class was the necessity of building the various departments at different times. That was rather against the quadrangle type on account of the unfinished appearance until the whole was completed.

Where the courts formed part of the group, it was an advantage, though not essential, if they could be connected to the municipal offices, and for heating, ventilating and cleaning purposes it was an advantage if the whole group of buildings could be linked together in some way, provided, of course, each unit was capable of being shut off and used independently when necessary. There could obviously be many variations of the arrangements he had briefly outlined, dependent upon the number of buildings to be included, the position and size of the site, and other factors.

Council Suite.

The council chamber was usually the most important unit in the group from an architectural point of view, and its relationship to the remainder of the council suite largely determined the arrangement of the plan, whilst freedom from outside noise must be considered. Accommodation must be provided for all the aldermen and councillors, mayor, deputy-mayor, town clerk, and a certain number of officials, together with accommodation for the Press and the public.

There were four typical arrangements of council chamber seating—the circular, semi circular, horse-shoe and House of Commons. The shape of the room was governed by the arrangement of seating adopted.

Type (a)—the horseshoe—was the most common, and, he thought, the most satisfactory. The entrance might be opposite or behind the mayor's platform, provided suitable screening of the doors was arranged. The gallery should be facing the mayor.

Type (b)—semi-circular—was unsatisfactory in all except the smaller council chambers.

Type (c)—circular or oval—had many good points, but

Type (d)—House of Commons—was objectionable in that it definitely divided the council into two equal parts (not always convenient), and that speakers were inclined to address the opposite benches rather than the chair.

It was customary to provide one or two seats on either side of the mayor's chair for the deputy mayor and distinguished visitors. The seats for aldermen could be conveniently separated from the councillors by a gangway. A large table for officials should be provided in the well, while a separate table for the town clerk and his staff was placed immediately in front of the mayor, and raised sufficiently so that private conversation between the mayor and town clerk was possible.

Gangways should be arranged so that no councillor had to pass more than three or four others to retire; doors to the council chamber should be arranged so that the minimum of disturbance was caused to the occupants of the room by people entering or leaving the council chamber.

As members often had to spend a considerable time in the council chamber, it was essential that the seats should be spacious and comfortable. He had found that about 4 ft. from front to back and about 2 ft. 3 in. centres made a good arrangement, whilst a fully upholstered roll arm added considerably to the comfort of the seats. Each councillor should have a desk and a drawer with a lock and key, and a small frame for his name. With the above spacing it was not necessary to have folding or pull-out flaps to the desks.

Generally, the "stepped" arrangement of seating was preferred, but occasionally movable seating on a level floor was provided so that the room might be used for other purposes. Steps need not be greater than 12 in., the back row of chairs being on the floor level.

If the rates office were placed under the council chamber, as was frequently the case, advantage could be taken of that stepping to get additional light below.

Press.

Opinions varied as to the proper position for the Press. They were often accommodated at small tables outside the circle of the seating, but he found Press men preferred to be at a table adjoining the officials in the centre. It certainly was the best place from which to hear everything that was said. In practice, also, the Press frequently wanted to obtain information from the officials. If they

were located in the centre, a convenient gangway should be arranged for the use of messengers. If it could be managed, a small room for the Press, convenient to the council chamber, was desirable. It should be provided with a telephone.

Public.

The public were usually accommodated in a gallery, which should be situated at the opposite end to the mayor, and they should have separate means of approach from the street wherever possible. The number of seats in the gallery should not exceed about 50. Considerable disturbance was often caused by members of the public, and the smaller the number the easier it was to control them. Seats in the public gallery should not be upholstered, and the floor should be covered with cork or similar material. Gallery seats should have a reasonably good view of the whole council chamber, and ample gangways and passages should be allowed to prevent disturbance by persons leaving the building.

Another arrangement was to put the public in a terrace on the council-chamber level, separated from the remainder of the room by a barrier. That arrangement increased the dignity of the chamber, and had the advantage that the gallery could be used on occasions from the chamber itself.

Council chambers were usually partly or entirely top-lighted. The essential qualities were good light, good acoustics and quietness.

Reception Suites.

Wherever possible, an ante-room of ample size should be provided outside the council chamber. This should be something more than merely a landing at the top of the staircase. It should be a place where members could retire from the meeting for a discussion and smoke, and was very useful on ceremonial occasions.

Mayor's Suite.

The mayor's parlour should be a well-furnished, dignified room and large enough for the mayor to receive a small deputation. A private lavatory and cloakroom should adjoin. A mayoress's parlour was usually provided. That could be smaller, but should also have its own lavatory accommodation. The mayor's secretary required a good office, with space for one or two typists, according to the size and importance of the town.

Sometimes the mayor's parlour was arranged *en suite* with the reception rooms, but more often it was adjoining, but self-contained. A good arrangement was to combine the mayor and mayoress's parlours and the mayor's secretary's room into one suite of rooms, with a common waiting-room or lobby.

Committee Rooms.

It had become the general rule to arrange the committee rooms *en suite*, and it was a great convenience if sufficient of them could be combined to make a room large enough to take a committee of the whole council. It should be remembered that they might also be used for reception and other social purposes.

Folding partitions could be arranged so that very little space was taken up when they were not in use, and, with a modern treatment of veneering, the partitions could almost exactly match the remainder of the wall. It was, of course, important to make the partitions as sound-proof as possible.

It was often forgotten that it was as important to have quietness in the committee rooms as in the council chamber, and if these rooms faced a noisy street, they should be provided with double windows.

Two or three small rooms for waiting or consultations were extremely useful. It would be found desirable to have one adjoining the committee rooms and one adjoining the mayor's parlour. These rooms might on occasion be used for small committee rooms.

Library.

A library or reading room for members was often provided in the larger type of building. It should adjoin the council suite and have ample bookcase accommodation. A muniment room, with an exhibition case for the display of charters and other historical documents, was also desirable.

Members' Rooms.

A members' common room and robing rooms for male and female councillors, together with adequate lavatory accommodation, should be provided near the council chamber. Sometimes the common room was omitted and the robing room made large enough to serve the dual purpose. Lockers should be provided for each member of the council.

A balcony for the announcement of election results should be arranged in a convenient place, and should be at least large enough to take three or four persons. It should be approached from a committee room, reception room or landing.

A service room was required in connection with the reception room or committee rooms, to enable teas or light refreshments to be provided. It should be fitted up with sink and electric hot-plate and, if possible, connected by service lift to the main kitchen. Independent approach from the outside was desirable.

Departmental Planning.

Apart from the council suite, a modern municipal building had to provide accommodation for all the departments of the corporation, the tendency being to get as many departments as possible together under one roof, in the interests of both economy and efficiency.

The departments usually included were: The town clerk, treasurer, surveyor, education, medical officer of health, waterworks, electrical engineer, estates, and weights and measures; but as the municipal activities tended to increase, other departments might well be added.

He did not propose to deal with each of those departments in detail, but if a range of good, well-lighted rooms was provided, the detailed planning was largely a matter of arrangement with the departmental chief concerned, and no two men would have the same ideas. For that reason he favoured large open spaces which could be divided and altered to suit circumstances.

Personally, he considered the central corridor system with rooms on either side an ideal one for the office section of the building; if the corridors were provided with a frieze of plate glass, ample lighting was obtained even when the ceiling of the corridor was lowered to form a duct for engineering purposes. By that system, a saving of 50 per cent. in corridor was effected, and often courtyards could be entirely avoided. The municipal offices should be designed for what they were—the administrative offices of a large business concern.

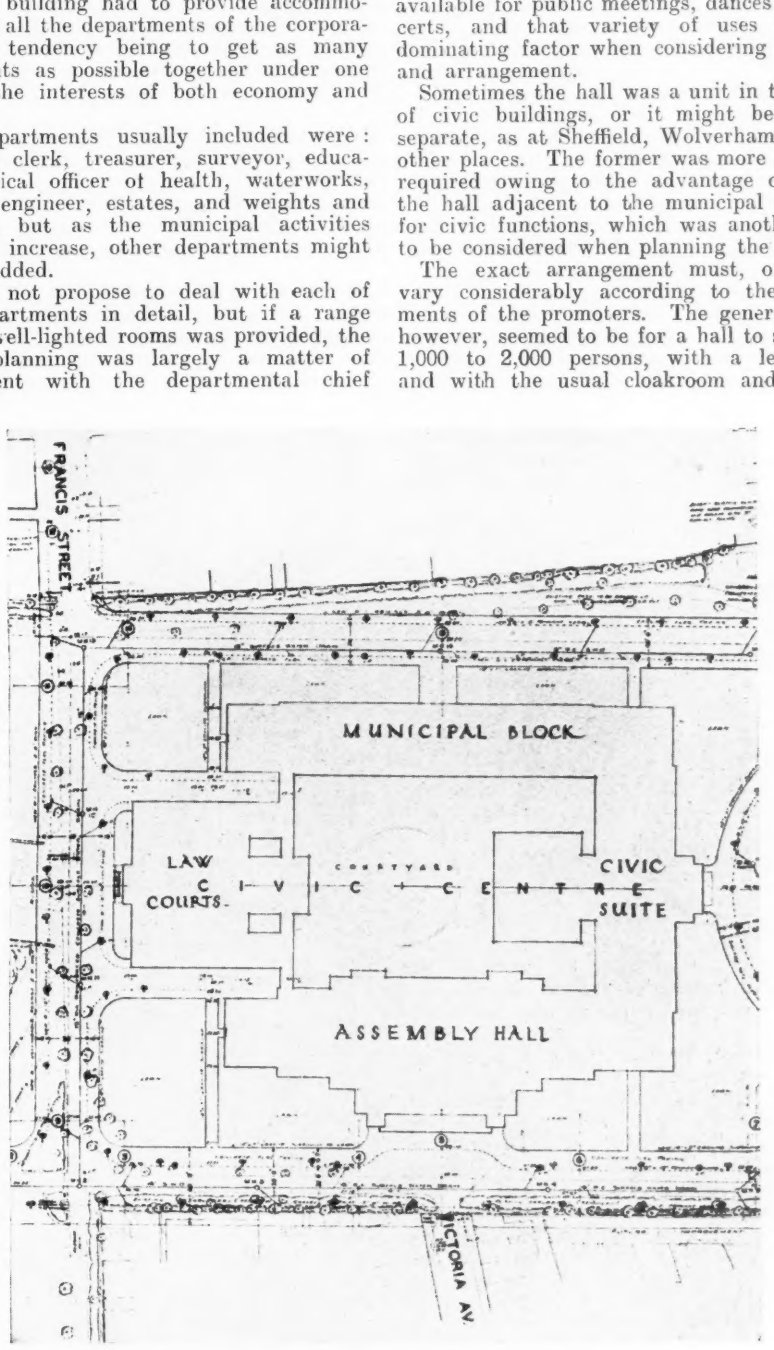
He did not think rooms should exceed about 20 feet in depth. With a unit of, say, 10 feet, that gave a minimum room of 200 square feet, although rooms of 150 and 100 square feet were often asked for.

Assembly Halls.

The public assembly hall had become more and more a feature of municipal buildings. He accounted for that by the fact that in many towns the privately owned halls had all been converted into cinemas, and also because it was almost impossible to make a hall of that type an economic proposition. The town hall was, therefore, often the only place available for public meetings, dances and concerts, and that variety of uses was the dominating factor when considering the plan and arrangement.

Sometimes the hall was a unit in the group of civic buildings, or it might be entirely separate, as at Sheffield, Wolverhampton and other places. The former was more generally required owing to the advantage of having the hall adjacent to the municipal buildings for civic functions, which was another point to be considered when planning the hall.

The exact arrangement must, of course, vary considerably according to the requirements of the promoters. The general desire, however, seemed to be for a hall to seat, say, 1,000 to 2,000 persons, with a level floor and with the usual cloakroom and retiring



SWANSEA CIVIC CENTRE: Block Plan.

MR. PERCY THOMAS, F.R.I.B.A. (Messrs. Ivor Jones and Percy Thomas), Architect.

room accommodation. It should be so planned that it was suitable both for banquets, concerts, dances and public meetings, and in some instances for dramatic performances as well; it must be so arranged as to be able to be used in conjunction with the municipal buildings, or independent of them.

Obviously, a hall to satisfy those various purposes must be a compromise, and a suitable shape, he thought, was a short rectangle with the stage at one end. Where possible, the hall should have a corridor on three sides; it made exit easier, and enabled people to reach their seats with a minimum of disturbance. Where a gallery was provided, it should be kept to the end only, and be built over the vestibule or corridor to reduce the overhang in the hall to the minimum.

Entrance Hall.

A good entrance hall should be provided, with suitable approaches for cars. From the entrance hall, cloakrooms and lavatories for both sexes should be easily reached, and should be of ample dimensions. In the majority of public halls, the cloakroom accommodation was totally inadequate. It was better to go down to a basement, where plenty of space was available, than to be content with a small cloakroom on the ground floor. If the site permitted, he believed the ideal arrangement was to have ample cloakrooms for males and females on each side of the hall.

Cloakrooms should have long counters and should either be simply recessed off the main corridor or provided with "In" and "Out" doors to regulate traffic. In the former case, however, they must be recessed deep enough so as not to obstruct the corridors.

The cloakrooms were usually provided with steel shelving divided up into pigeon-holes of about 15 in. cube, placed against the wall or in double island stacks, each pigeon-hole taking a folded coat and a hat, space for the storage of umbrellas being arranged under the counter. In the ladies' cloakroom, however, a certain proportion of hooks would be necessary for garments which must not be folded. Lavatory accommodation should adjoin the cloakrooms, and preferably should open out of them. If ground-floor accommodation was limited, the lavatories might be arranged on an upper or lower floor, rather than cramp the cloakrooms.

Floor of Hall.

The floor of the hall should be on springs for dancing purposes. A space of 6 or 7 ft. against the walls should be left rigid for chairs or tables. Very efficient floor springs could now be obtained, and by a simple locking device the whole floor could be converted into a rigid one in a few minutes.

The lecturer then proceeded to detail the requirements for platform and stage, organ, chair store, carpets, projection room, refreshment room, kitchens and box-office, concluding with some notes on the planning of law courts.

Proceeding, he said he would make a special point of furnishing. His own experience went to show that an architect could, by designing and supervising the furnishing of the building, not only ensure that the whole scheme was finished in harmony, but could, by his knowledge and experience, considerably assist his clients in that important matter.

In conclusion, he would like to appeal to local authorities, and the Ministry of Health, to allow a little more money for those municipal buildings. The tendency in the last year or so had been to bring the cube price down to the value of a block of business premises, leaving no opportunity of treating the halls, staircases and civic portions of the buildings with that dignity and richness which, after all, we were entitled to expect in the headquarters of our city government.

Vote of Thanks.

Mr. H. V. Lanchester, proposing a vote of thanks to Mr. Thomas, said there was to-day a very much better appreciation among civic bodies of the need for providing adequate buildings in adequate surroundings. Cardiff offered a most imaginative site for the purpose of its civic buildings, and the example set by that city had since been followed by other cities. The setting was as important as the building itself. The speaker made one or two interesting practical suggestions. With regard to police-courts, he suggested that it would be much better to arrange for the dock to come up from below as a lift, and so do away with the present undignified arrangement, by which prisoners have to be dragged up and down narrow stairs. He also suggested that an excellent spring floor for ballrooms could be provided by the use of shallow-depth joists in both directions, by means of which a floor is always indirectly supported.

Mr. W. J. Hadfield, President of the Institution of Municipal and County Engineers, seconded the motion in an amusing speech.

Alderman Ewart G. Culpin, supporting the vote of thanks, said that in the County Hall, designed by the late Ralph Knott, he believed they had a block of buildings not only worthy of London, but forming a fine beginning for the proposed new Embankment on the south side of the Thames. He was pleased, also, that the County Council had secured the services of the President of the Institute, Sir Giles Scott, for the design of their new buildings. Good municipal buildings were an economy, and it was a great fallacy to think that efficiency could be secured with scattered offices. Car parks were an essential feature in connection with municipal buildings, for it was no longer possible to infringe on the public highway.

THE DORIC CLUB

At the annual dinner of the Doric Club at the Clarendon Hotel, Oxford, on February 2, Mr. Stanley Hamp, President of the Berks, Bucks and Oxon A.A., referred to the panel of architects set up in the three counties by the Association, to assist builders and others concerned in preserving the amenities of the countryside.

"It is up to you as architects to avoid what is happening now," he said. "In anything you do you will have your Council behind you. These are the three most lovely counties in England, yet everywhere one sees ugliness and spoliation creeping in. The architects in the three counties have already done something to preserve the beauties which are our heritage, and one way we have helped, and can help, is by helping those who are putting up buildings. We have tried to institute a policy whereby builders can be supplied with plans of houses and other buildings they propose to erect, but I am sorry to say that in Oxfordshire we have not received the support we desired. It is for you to see if you can get that support. I am told that the young people think work of that description is undignified and against the interests of progression. I think that attitude is entirely wrong. In doing this work you will be helping to maintain the beauties of the country, and you will be helping people to do their work better than they do it at present."

New Manchester University Library.

The new Manchester University Library, which has been designed for the Faculty of Arts by Messrs. Thomas Worthington and Sons, is to be built immediately, in a rearranged Lime Grove, between the Arts Building and a number of other buildings planned by the architects for the University. The object is to increase the room of the unions, improve the refectory, and create a staff house. It is not proposed to begin these buildings yet. The library extensions proposed would more than treble the accommodation of the building now begun, which is designed to hold 300,000 books and about 280 readers. The new building is to be in brick and Portland stone, which are the materials of the Arts Building. In plan it is somewhat similar to the new Radcliffe Library, which Mr. Hubert Worthington designed for Oxford.

THE FLAT-ROOF

By M.A.

IV.—CONCLUSIONS.

We have considered most of the aspects of this thorny question with less pretence and restraint than is usually the case. After such plain speaking we should be in a fit state of mind to be frank about the matter.

As things are, the question of the flat roof has become a source of embarrassment to all those who have attempted to administer the Town and Country Planning Act. It has been thought that no authority should dare to say definitely that the flat roof is to be taboo in their area, but at the same time the authorities have obviously been seriously concerned about this crude form which is so often thrust under their notice in the name of art. An attempt is made to pretend that each case is judged on its merits, and that the flat roof is to be accepted in its place, if properly designed. No one has yet attempted, however, to say what is the proper place for the flat-roof building, nor in what way it is to be judged as good or bad design. It is obvious that if a local authority under adequate technical advice could say that their rule is "no flat-roof building in its area unless under special circumstances," and for any specific purposes, the whole of the question would largely solve itself. It would not be a difficult matter to judge whether a flat roof was of special value to the occupier of a particular house on a particular site, and by simplifying the issue the cares of the local authorities would be materially reduced.

I claim to have shown quite clearly that the desire to terminate a small dwelling-house with a flat roof is limited to the very smallest practical considerations. I have attempted to convince readers of these articles that the mechanical age to which the modernist designer pays tribute in this crude form of building is unworthy of any monument. I have pointed out that there is very little, in any case, to weigh the balance in favour of a flat roof from practical considerations, and in most cases practical considerations are better served with the traditional roof form and the space it provides. I have not dealt with the economies which can be secured by an adequate use of roof space by partly or wholly providing living-rooms within it, largely because of a certain prejudice in some quarters against the provision of a sloping ceiling in a living-room. I have, however, shown that there is no argument as to relative costs which can be used to support the flat-roof method if we take into consideration all the services which each method is able to offer.

I therefore suggest with every confidence that there is a common-sense point of view, and that the profession should take a lead in this matter by expressing some of the fallacies which mystify the general public, and by making definite recommendations to the Minister of Health to provide public guidance in this perplexing problem.

It is in the interests of all of us that there should be no further Ruislip cases. In this case we all know that after prodigious efforts and prolonged discussions and negotiations, the local authority has accepted a design which differs very little indeed from that which in the first place was rejected by an overwhelming majority. Nothing is easier to produce than the unusual. It is the modest and unobtrusive form of design which needs the highest skill in handling, and the masters of domestic architecture in this country have shown with what fluency and with what unlimited variety of charm the simple, everyday problem can be treated. Those who have forgotten the work the English domestic architects in the height of their talent have done would do well to refer back to some of the pre-War publications which illustrate this type of work, and which do more to show the alive and up-to-date mental state of the designers than any extraordinary oddity can achieve at the present time.

(*Concluded.*)

WEATHER-VANES—III

VANES FANCIFUL AND PICTURESQUE.

By E. TYRRELL-GREEN.

WHILE older weather-vanes are for the most part heraldic or emblematic, and amongst modern ones there are many examples alluding to sport and work, or illustrating the occupation carried on in the building they adorn, yet about many vanes erected in recent times there is no particular appropriateness, though some of these fanciful creations are charming because of their originality and picturesque outline silhouetted against the sky.

Occasionally, heavenly bodies figure as vanes, though it is not easy to account for design of this type, except that the elevated position of a vane may have invited such method of treatment. The curious spire of St. John's, Horselydown, near the Tower Bridge, is thus surmounted by a gilded comet (Fig. 1), and at Poissy on the Seine, not far from Paris, the sun and moon are brought into requisition for a vane (Fig. 2).

Birds or animals are sometimes employed without apparent reason or fitness. A private house at East Dereham (Norfolk) displays a somewhat rudely formed peacock in place of the usual weather-cock (Fig. 3), and amongst pretty eccentricities may be classed a black cat in a garden at Earls Colne (Essex) (Fig. 4), and a little model of a sea-horse at a private house in the village of Writtle (Essex) (Fig. 5). Freak vanes are often made by village blacksmiths and set up above the forge, and a curious example of such display of local craft is the sailor on horseback—evidently a horse marine—

FIG. 1.

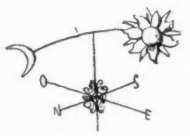


FIG. 2.

with telescope held to his eye, surmounting the smithy at Mereworth (Kent) (Fig. 6). Only the fancy of the designer, again, accounts for the well-modelled lion, somewhat oddly pierced with decorative forms, which is set upon a garage near the station of Maldon East (Essex). Below the animal in this case a banneret of conventional form bears the initials of the proprietor and the date of its erection (Fig. 7).

Of birds, a pheasant is a popular subject for a vane. At Aldham Bridge (Essex) is a fine pheasant vane brilliantly painted in natural colours, and over the Corn Exchange at Saffron Walden (Essex) veers a gilded pheasant (Fig. 8). Pleasing and unusual in form is a vane at The Hamlet, Little Coggeshall (Essex), with two love-birds for its theme (Fig. 9). Flying birds are not common as vanes, but there is a good example of a flying wild duck in a private garden at Dovercourt (Essex) (Fig. 10). Flying machines, however, have captured popular fancy, and aeroplanes or airships frequently figure as vanes; an elaborate example, exhibiting both a plane and a shop, may be seen in a garden at Ware (Herts) (Fig. 11).

Probably unique is the representation of a fiddle, which is not exactly a wind instrument, borne for a vane by one of the pinnacles of the fine tower of Great Ponton Church (Lincs) (Fig. 12). The tower was

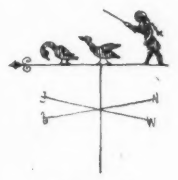


FIG. 15.

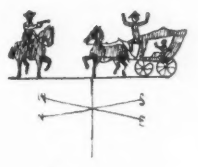


FIG 16.

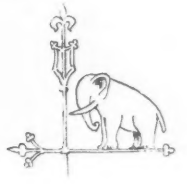


FIG. 17.

FIG. 18.

FIG. 19.

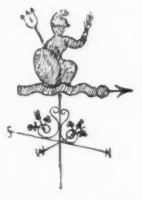


FIG. 20.

FIG. 21.

FIG. 22.

FIG. 23.

FIG. 24.

built about 1520 by Ellys, then lord of the manor, who was a woolstapler of Calais, and originally it had no vane. The first vane, in the shape of a fiddle, was made by a tinker who lodged in the village within the memory of persons only lately dead. About thirty years ago this fell and was broken, and when the re-erection of a vane was taken in hand the parishioners wished to perpetuate the familiar shape, so that the present peculiar vane was made after the same pattern as its predecessor. The vane above the public buildings at Hoddesdon (Herts), displaying a mermaid (Fig. 13), also lies open to a charge of incongruity, for the town has no connection with the sea or with seafaring industry. Pure fancy has also determined the form of a handsome vane in a private garden at Bocking (Essex)—an armed knight on horseback tilting with lance in rest (Fig. 14).

Some recently erected vanes are of scenic character, such as the goose girl with her charges adorning the Tudor Tea Rooms on the Folkestone Road, near Maidstone (Fig. 15). Well rendered, too, is the scene depicted by a vane upon a motor garage and filling station on the hill-side above Farningham (Kent). A highwayman here appears in the act of holding up a lady's coach, the costumes and details recalling exploits of Dick Turpin or Paul Clifford (Fig. 16). This, of course, must not be taken as intimating that undue toll is taken of the traveller at the spot, but it is an arresting signal to halt for the supply and attention which are provided in the garage.

Residents in Colchester, or visitors to the town, will most of them be familiar with the splendid gilded elephant that presides over the huge bulk of the water tower (Fig. 17). This belongs to the class of fanciful vanes, yet there is a reason for its particular form. When the water tower was built (1881), its ungainly bulk, supported upon four enormous brick piers, suggested a comparison with the famous elephant "Jumbo" at the Zoo, at that time celebrated in a popular music-hall song, and the name Jumbo stuck to the water tower. The Colchester Corporation took the joke in good part, and perpetuated the humorous allusion by adopting a presentment of Jumbo for the vane.

The sign of an inn does not find embodiment in a vane so often as might be expected. The "Dog and Partridge" vane above the inn of that name at Bury St. Edmunds has been already alluded to under the head of vanes alluding to sport, and a kindred example may be noted here and there by the observant wayfarer. The "Ostrich" inn at Prestwich (Lancs), thus bears aloft its sign in a vane depicting an ostrich enjoying his assumed favourite diet of a horse-shoe (Fig. 18). Again, the "Anchor" hotel at Brightlingsea (Essex) suitably displays its sign pierced in a vane of the banneret form (Fig. 19). In the nature of a business sign also is the well-known badge of the Norwich Union—Britannia with her shield and trident—which forms the vane over some office buildings now incorporated into the "Bell" Hotel at Norwich (Fig. 20). The pleasing wrought iron-work below the figure of Britannia in this example shows the rose, thistle and shamrock combined on one stem.

But most charming of all pictorial vanes of fanciful design is the one above the premises of a dealer in antiques at Holbeach (Lincs). This shows a lady with her dog on a lead, and both are battling against a strong wind which has turned the lady's umbrella inside out (Fig. 21). The group is so arranged as to indicate vividly and at a glance the direction of the wind, and it is thus most admirably designed for its purpose.

Those who visited a former Building Trades Exhibition at Olympia must have noted the stand of Messrs. Wheatley and Co., of Newcastle (Staffs), designed by Mr. Edward Maufe. The prominent feature of this admirable little structure was a cupola appropriately crowned by a Triton vane (Fig. 22) which drew attention to the "Triton" products of the firm. But of many of Messrs. G. A. Harvey and Co.'s original pictorial vanes, one illustrating a man's escape from a bull may be cited as a clever example (Fig. 23). A craftsman in the Sussex village of Storrington struck out new lines in the way of dainty design for direction signs and weather-vanes, and from these last we select for illustration a representation of a girl with her pet rabbits (Fig. 24).

FIG. 3.

FIG. 4.

FIG. 5.

FIG. 6.

FIG. 7.

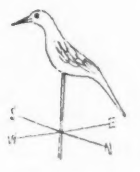


FIG. 8.

FIG. 9.

FIG. 10.

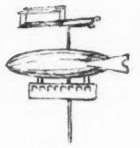


FIG. 11.

FIG. 12.

FIG. 13.

FIG. 14.

A NEW ARCHITECTURAL SOCIETY

About two hundred or more persons, nearly all of them young men connected with the architectural profession, assembled on Monday evening at the Conway Hall, Red Lion-square, W.C.1, to discuss the formation of a new architectural organisation.

Mr. M. Black, who took the chair, called attention to a memorandum which had been circulated, and which was to form the basis of the evening's discussion. This memorandum stated that the small group of architects and ancillary specialists responsible for the meeting felt that to-day, when the need for a skilled solution of housing and town-planning problems was becoming more and more urgent, the architect found himself completely unable to assume his proper social responsibilities. Further, his economic position was becoming increasingly insecure: employment was more casual, salaried assistance was underpaid, talents were unfairly exploited, the cost of architectural education was out of proportion to the training provided, and there were insufficient opportunities for the student of small means. Since the Renaissance, the architect's position had been one inseparable from private patronage, and the difference made since the war by the State's activities in the field of housing was more apparent than real; because while he appeared to be working for the common good, in reality the architect was still not permitted to exercise fully his technical experience or satisfy his social convictions. He was still prevented from giving of his best to the community by the representatives of rent, interest and profit. Consequently, the chaos in our social relations brought about by the anarchy in our economic life was reflected in the inhuman and indecent enormity of our slums and in the strangulation of all attempts at rational town planning. Moreover, it was stamped on the architect himself by the inferior position allotted to him.

The memorandum continued that the field for private enterprise in architecture was steadily narrowing, and that perhaps 75 per cent. of those now undergoing architectural training were fated to salaried employment—generally casual and illpaid. Railway companies, banks, breweries, multiple firms, estate developers, local authorities and all forms of commercial and industrial undertakings, had reduced the opportunities of independent practice, and wherever the claims of technical excellence had clashed with the profit motive, the former had been sacrificed. The architectural profession as a whole had not consciously attempted to face up to the situation.

After developing an argument that the present position of affairs was one leading up to Fascism and war, the memorandum continued that it was addressed to all who were prepared to oppose such a catastrophe, and that its object was to form a basis for discussion from which an organisation might be formed, in which organisation the members might make a solid architectural contribution to present and future problems. In particular, they would fight for the undertaking, at a proper remuneration, of the immense arrears of architectural work which insistently demanded attention in housing and planning.

Mr. F. Skinner (Secretary of the Provisional Committee), in a lengthy address, emphasised the points set out in the memorandum. What could architects do, he asked, to help the drive for better conditions for the working class? The architect's speciality was building, and he should bring to the front the immediate demand for providing a roof for every family. A recent report of the National Housing Committee stated that the provision of housing accommodation for every family in the United Kingdom, at a rent within the family's capacity to pay, should be accepted as a public responsibility and national service. The number of dwellings needed merely to overcome the present overcrowding had been estimated at 1,500,000, and sometimes half the total income of a working-class family must go in rent in order to house five or six people in one room. The Government did not cater for the necessities of the pauperised working class, but subsidised landlords and building capitalists and tried to make concessions to the middle class. Architects could show to the working class the way to get better, more efficient and more up-to-date accommodation within easy reach of the centres of working-class activity. They could also assist mass movements of tenants fighting for better standards of structure, equipment and repairs.

It was proposed to form research committees to study housing problems, and the collaboration of other architectural bodies, as also of social research groups and tenants' defence organisations, etc., would be welcomed. The activities of the proposed association should not be limited to the housing question, but should deal also with the general position of the architect in the present state of society. With the growing power of monopoly capital, it became ever more and more difficult for an independent architect to get work without investing in speculative building operations, and, moreover, moving in the proper circles and right clubs. Most private architects were usually reduced to complete inactivity unless enrolled in the army of white-collared workers in the offices of the few established private employers. The terrible casualness of architectural employment tended to lower the standard of pay of employed architects by holding over their heads the danger of dismissal. He advised architectural assistants to join their trade union—the Association of Architects, Surveyors and Technical Assistants—so that that organisation might become strong enough to enforce the payment of a proper scale of salaries. The production of a new architectural proletariat went on, for the schools continued to turn out hundreds of new architects, who must abandon all hope of private practice.

The speaker added that the working class was fighting the drive for rationalisation without compensation to those displaced, and it was the duty of architects to support that fight. The gap between architects and building workers should be filled—at present it was getting wider and wider. The policy of the proposed new association should deal with (1) the position of the architect and the conditions of his employment and training; and (2) the professional activity of architects in the organisation of socially useful architectural work.

In a long discussion that followed, a great many members of the audience took part, but there was no note of opposition to the platform proposals. The first speaker pointed out that in Germany at the present time architectural students were being expelled from schools and put into concentration camps because they were Jews or Communists.

Mr. Reeves asked if it was proposed to form a trade union.

The Secretary replied that it was not intended to form a rival organisation to the A.A.S.T.A. That was an organisation of employees, but the one now proposed would be much wider in scope, and would deal not only with the problem of employed architects, but also with that of action by the profession as a whole, and that of the best means of providing work for the profession as a whole.

Mr. Le Gros Clark (Secretary of the Committee against Malnutrition) said that many members of his body would welcome co-operation with the proposed association.

The Secretary of the A.A.S.T.A. said he was not able to state the policy of his Council towards the proposed new association, because his Council had not had an opportunity of considering the matter. The new association had an ambitious programme, and he certainly wished it well so far as he was concerned.

The secretary of a trade union of stone carvers said that, incredible as it might seem, some 90 per cent. of carvers had been unemployed during the last three or four years. This was largely due to the tendency to eliminate individuality from building. Structures were designed for mass production; for that reason they were made as plain as possible, and there was no place for carving.

Another speaker said he had worked for twelve months in Russia. In that country he had had the opportunity of doing architecture, but it was impossible for such opportunities to arise in England to-day.

More than one speaker advocated taking the burden of rates off house property and substituting a tax on land values. This, said one of them, would bring down land costs and encourage the building of more working-class dwellings.

A student proposed that a separate section of the association be formed for students.

A resolution was proposed by the Chairman stating that there was need for an organisation of architects on the basis laid down in the memorandum. This was adopted. It was agreed that such an organisation should be set up, and a committee of eleven members was elected to go further into the matter, and in due course convene another meeting.

R.I.B.A. EXHIBITION OF BOOKS AND DRAWINGS

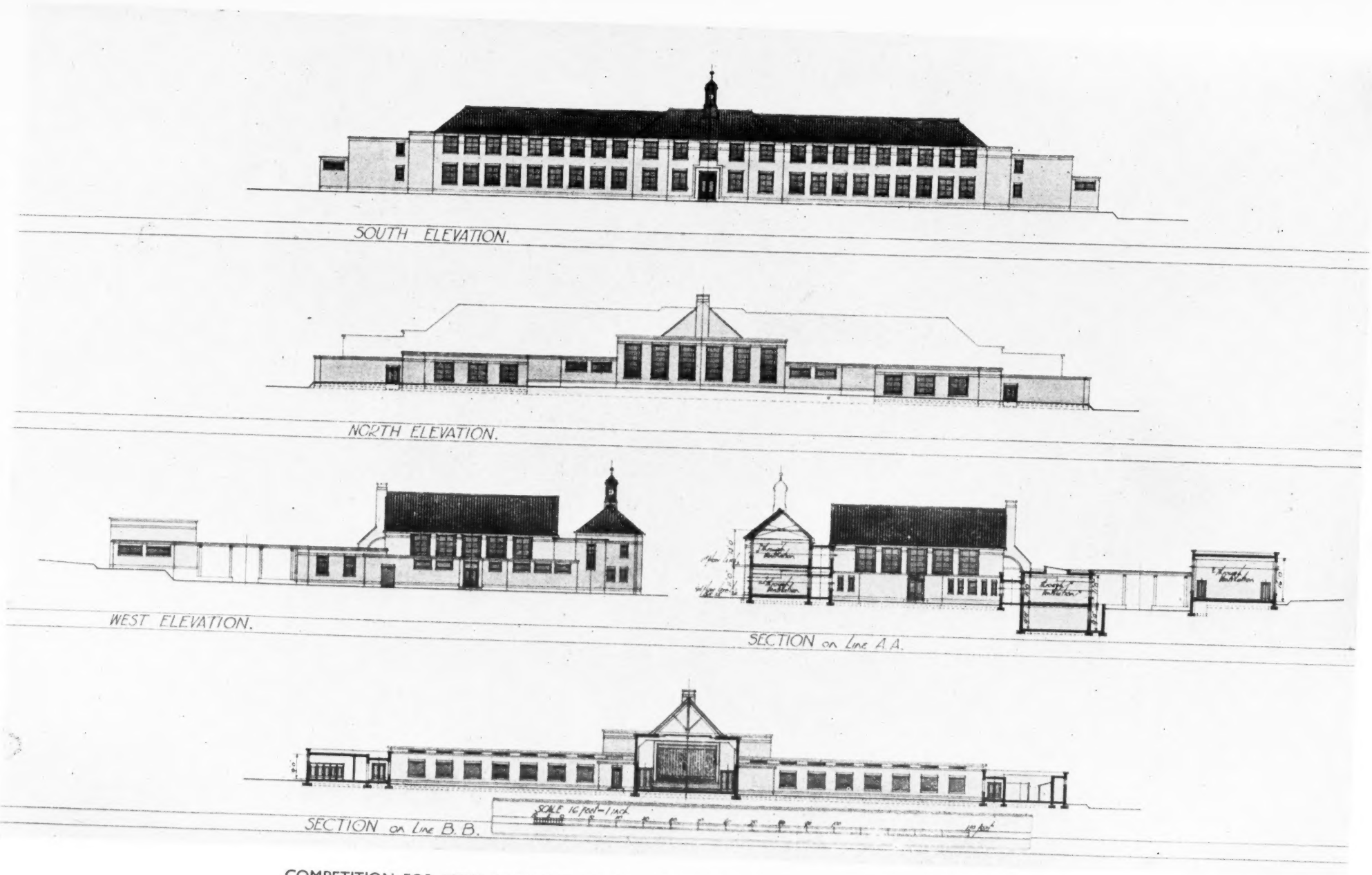
Sir Frederic Kenyon opened at 66, Portland-place, W., on Monday afternoon the exhibition of books and drawings, the property of the Royal Institute of British Architects, which has been arranged for public inspection and will remain open until March 6. Sir Giles Scott occupied the chair.

Sir Frederic said he took it that the exhibition was intended to give the public a chance to see not only the new building of the Institute, but also the wealth of architectural drawings in its library. He hoped the public would take advantage of the opportunity and would thereby gain some knowledge and appreciation of the rich architectural art in their midst. All were concerned in the results of architecture. The exhibition was aimed more exclusively at the student, both the student who was a member of the Institute and the serious student who worked outside it. They would find enshrined in the new building what he imagined to be by far the finest collection of architectural literature and drawings in the world. Archæologically, the drawings contained valuable evidence in regard to buildings that had disappeared, but the chief value of the collection, properly used, was in the training of those who were going to be engaged in architecture.

Mr. M. S. Briggs (chairman of the R.I.B.A. Literature Standing Committee) moved a vote of thanks to Sir Frederic Kenyon. He had never been able, he said, to believe that a reasonable knowledge of architecture cramped a man's style in modern design, any more than a good education prevented him from writing clear, terse English.

The Le Play Society: Easter Vacation.

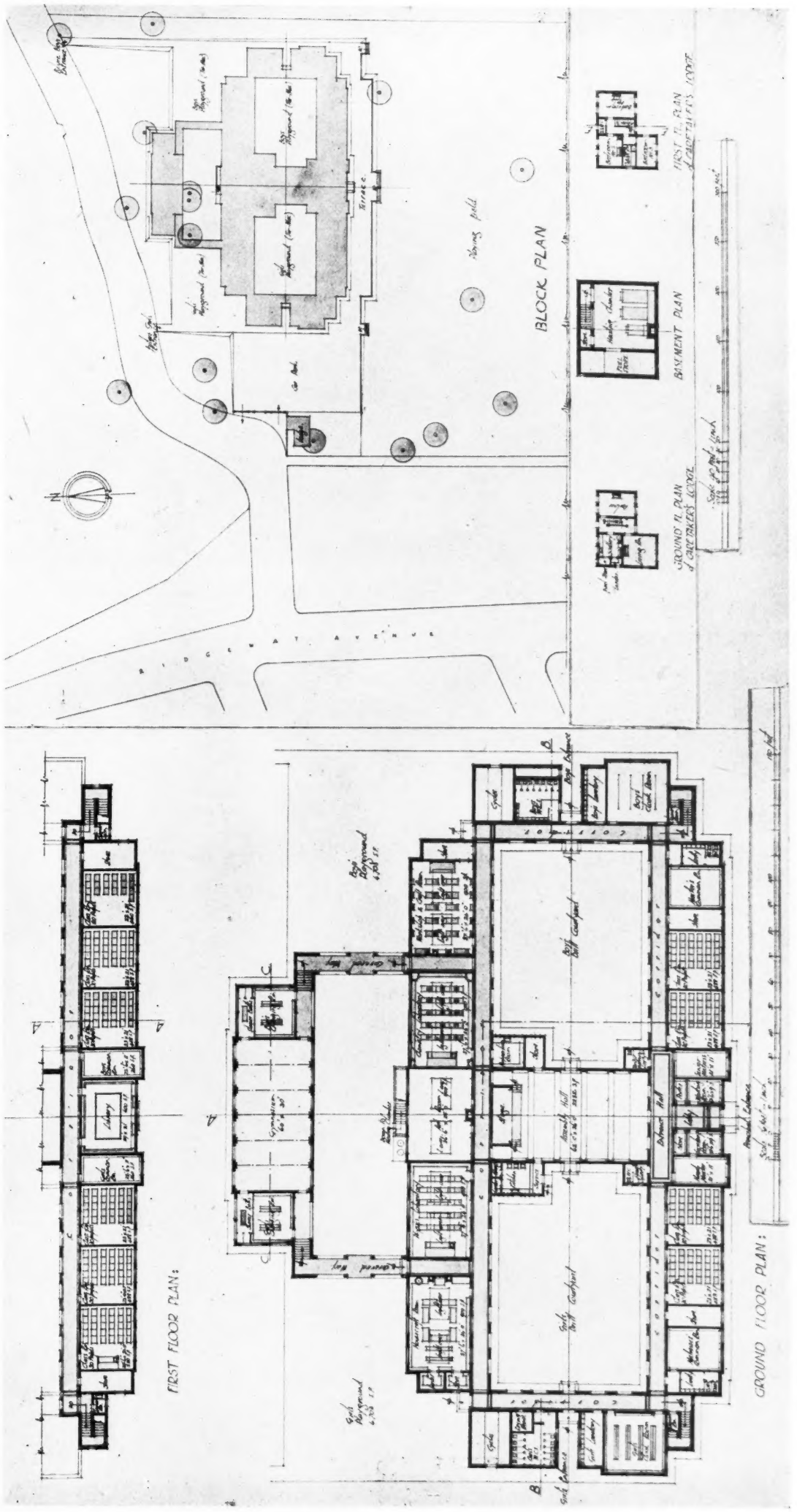
The Administrative Council of the Le Play Society (58, Gordon-square, W.C.1) have an interesting programme for the Easter vacation. Under the leadership of Mr. H. S. Williamson, Principal of the Chelsea School of Art, and with Mrs. H. V. Lanchester as hostess, a party is to leave London for Spain on April 6. From Madrid a journey south will be made by touring car. Another party is to go to the Apennines. Dr. G Furlong, Lecturer at the National Gallery, will lead, and the hostess will be Miss Margaret Tatton. Survey work at home is to be undertaken in Ipswich and its neighbourhood, under the guidance of Mr. George Morris, B.Sc., and Mr. Guy Maynard, F.R.A.I., Curator of the Ipswich Museum; also in the Cotswolds, Miss Charlotte Simpson, B.Sc., F.R.G.S., having a special training course at Cranham. Those interested in any of these activities should write to Miss M. Tatton, Director.



COMPETITION FOR NEW GRAMMAR SCHOOL, EAST BARNET, FOR THE HERTS. C.C : Winning design.

Mr. W. F. GRANGER, F.R.I.B.A. (MESSRS. LEATHART AND GRANGER), Architect.

(See page 327.)



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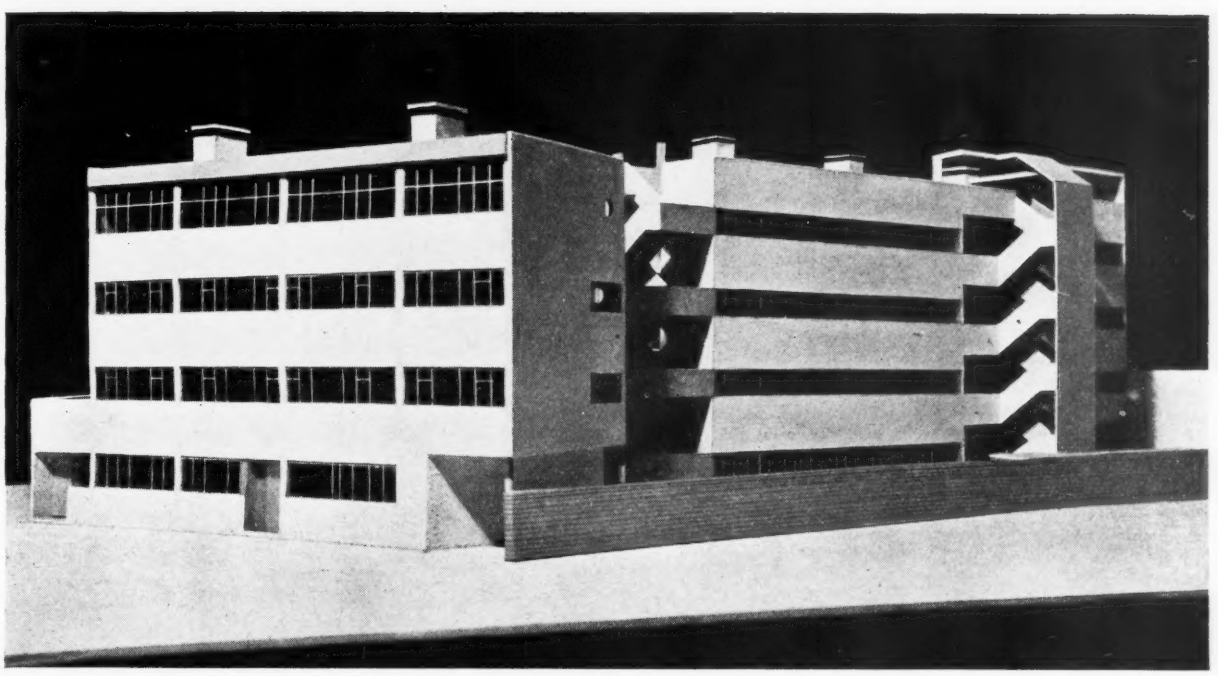
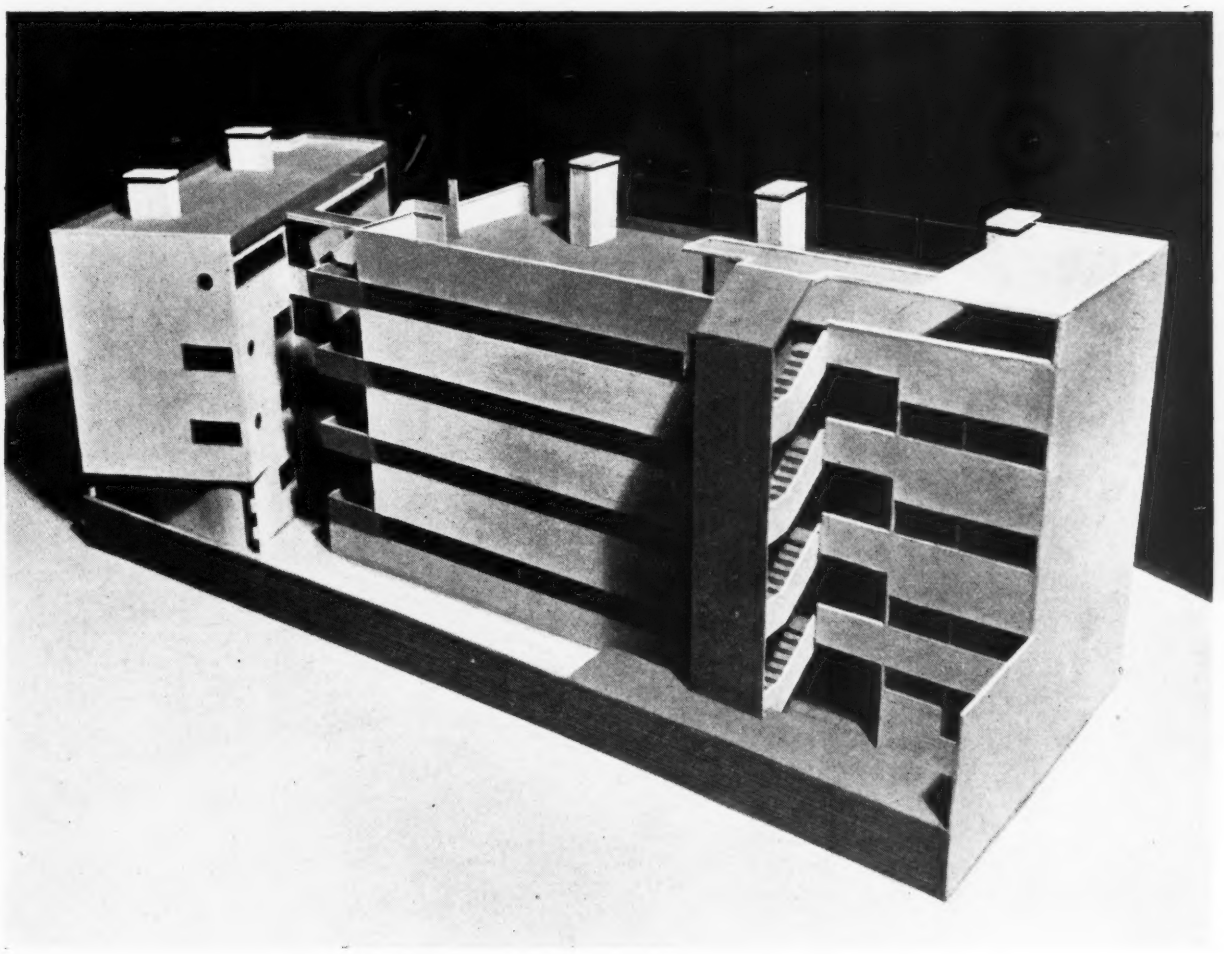
(See page 327)



FRONT AND SIDE ELEVATIONS.

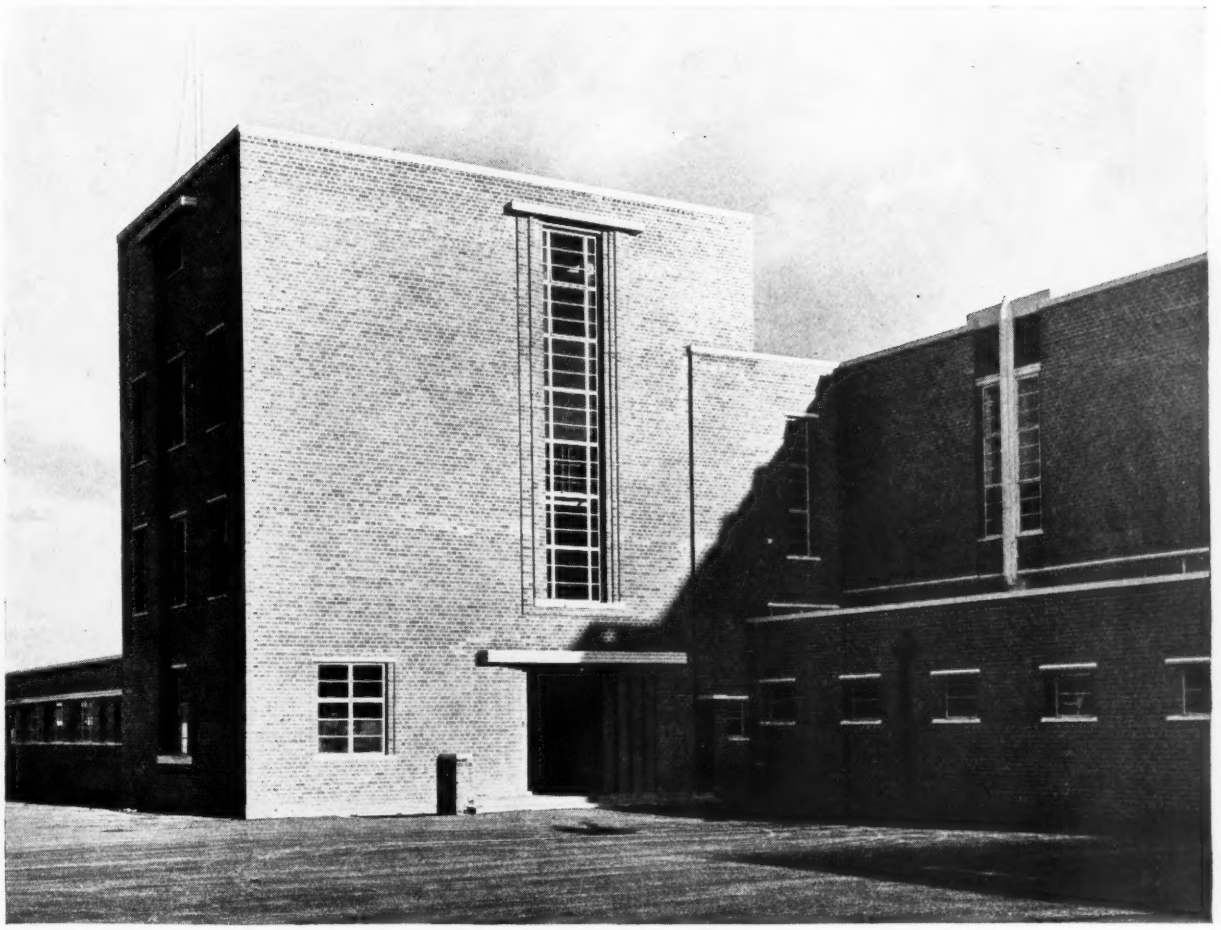


BIRD'S-EYE VIEW.

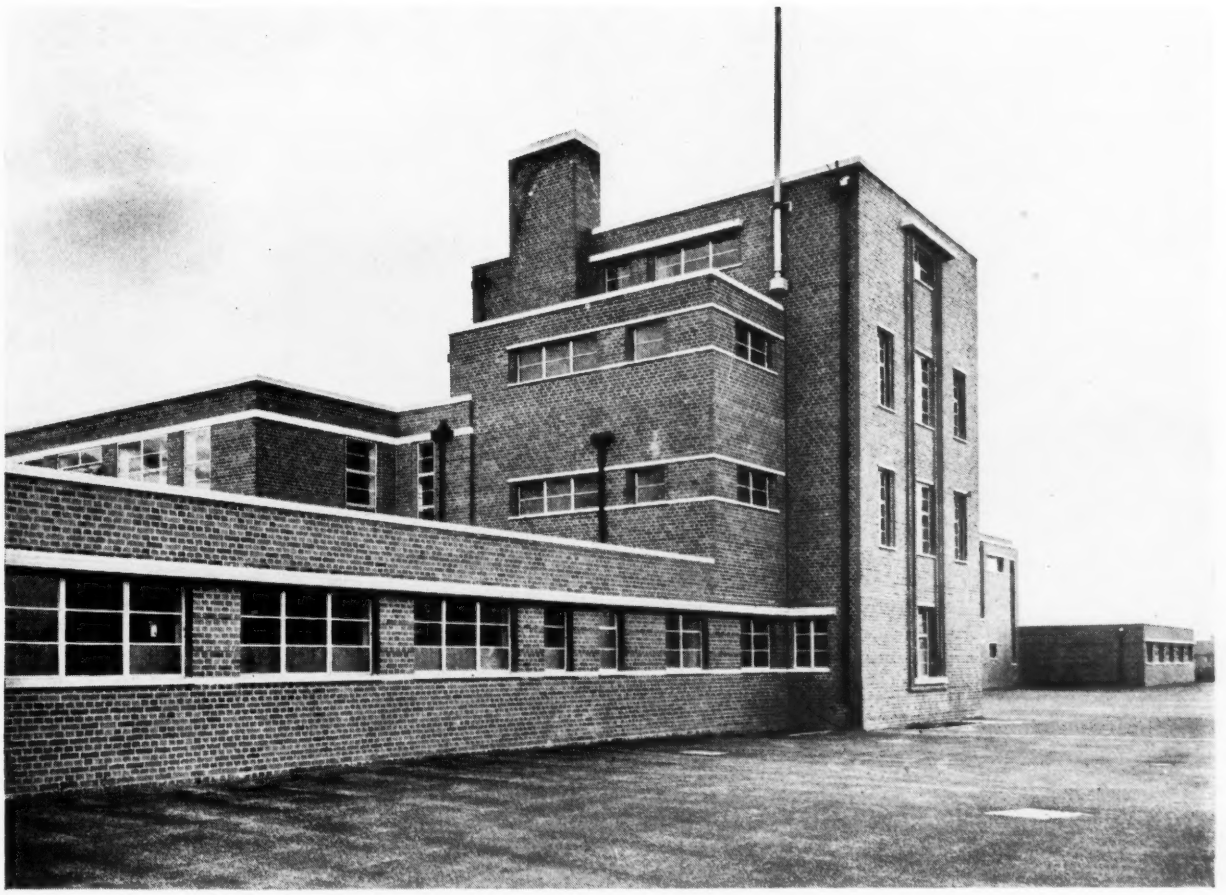
MODEL FOR NEW REINFORCED CONCRETE FLATS FOR THE ST. PANCRAS HOUSING IMPROVEMENT SOCIETY

MESSRS. CONNELL, WARD AND LUCAS, Architects.

(See page 327.)



MAIN ENTRANCE.

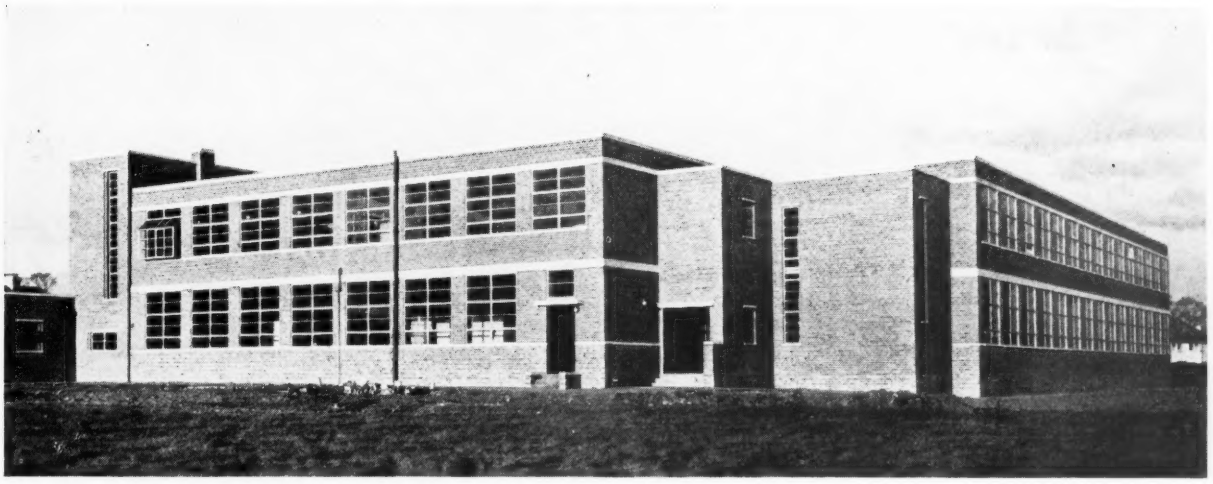


GIRLS' CLOAKROOM AND REAR VIEW OF MAIN ENTRANCE TOWER.

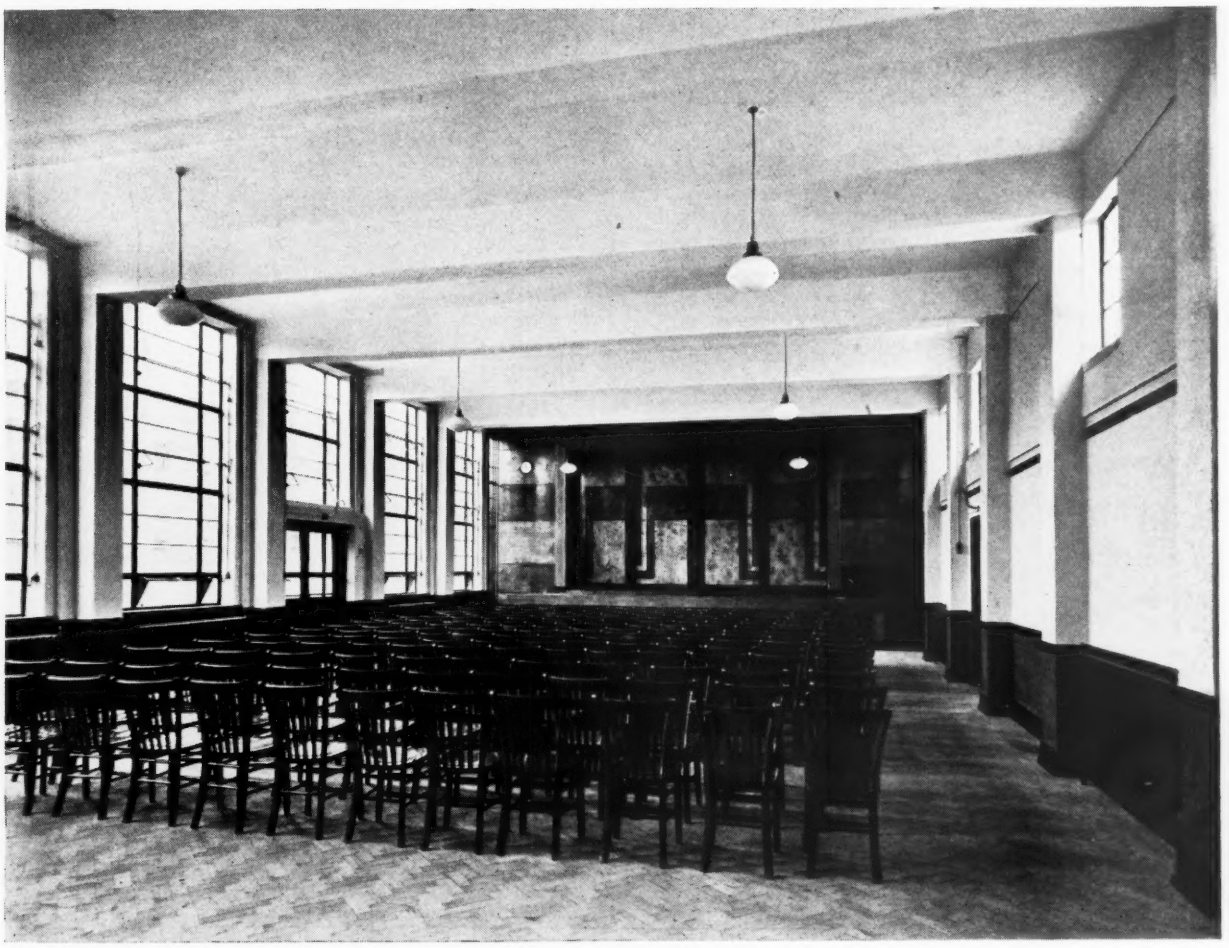
BELMONT COUNCIL SCHOOL, LOCKET ROAD, HARROW WEALD.

MR. W. T. CURTIS, F.R.I.B.A., Middlesex County Architect; MR. H. W. BURCHETT, A.R.I.B.A., Assistant Architect for Educational Buildings.

(See page 327.)



SIDE AND BACK ELEVATIONS (CLASSROOMS ON LEFT).

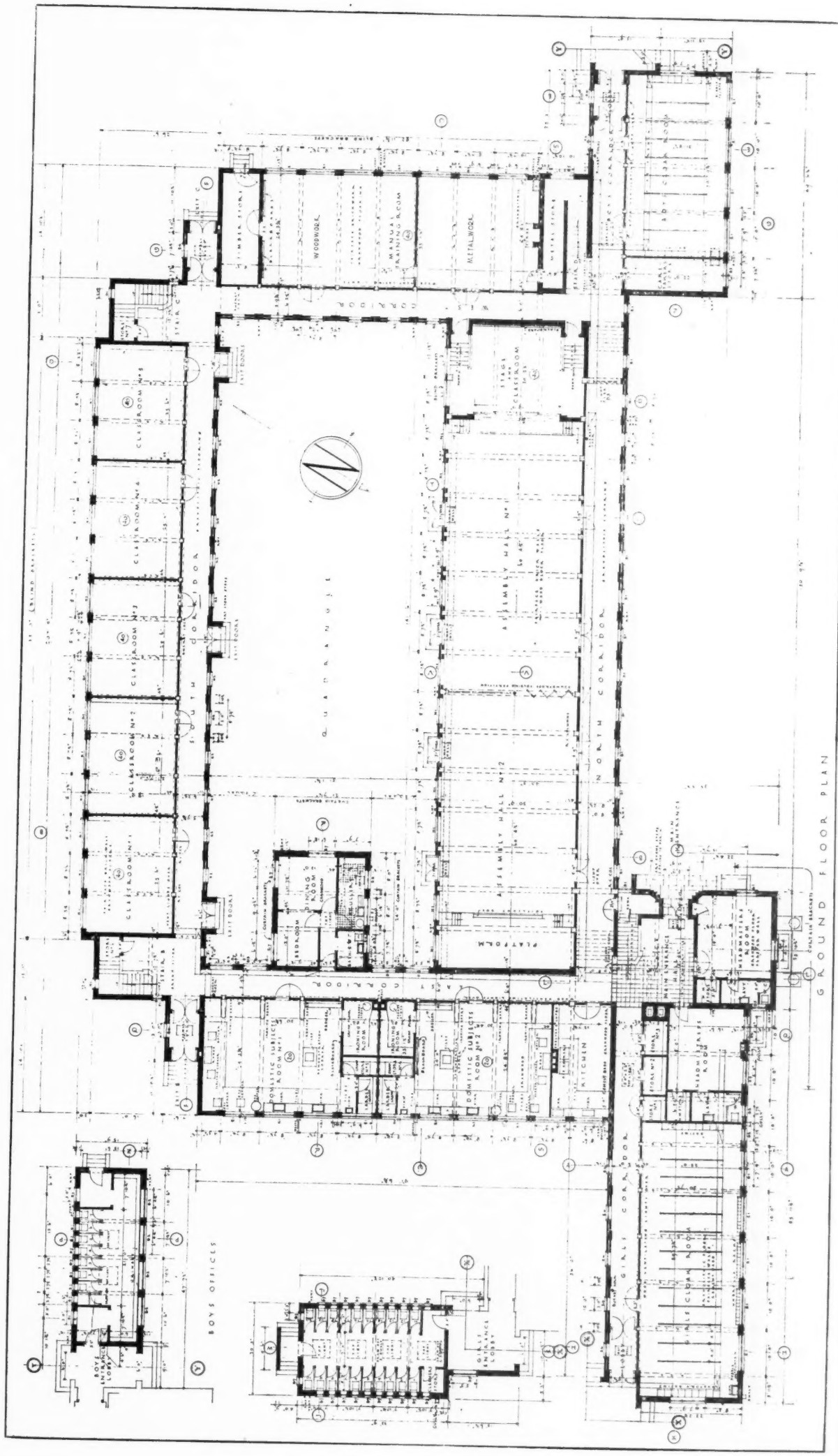


THE ASSEMBLY HALL.

BELMONT COUNCIL SCHOOL, LOCKET ROAD, HARROW WEALD.

MR. W. T. CURTIS, F.R.I.B.A., Middlesex County Architect: MR. H. W. BURCHETT, A.R.I.B.A., Assistant Architect for Educational Buildings.

(See page 327.)



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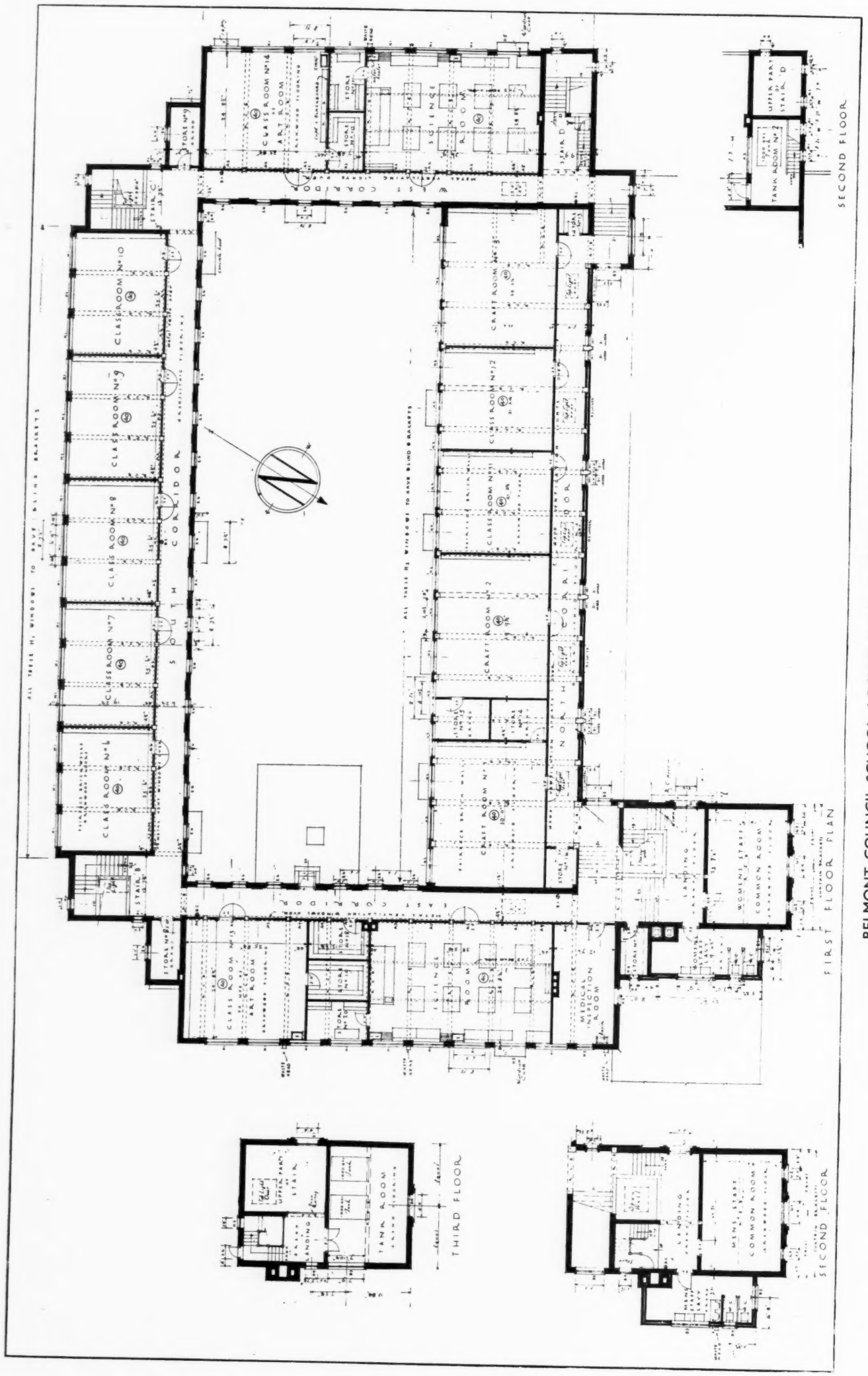

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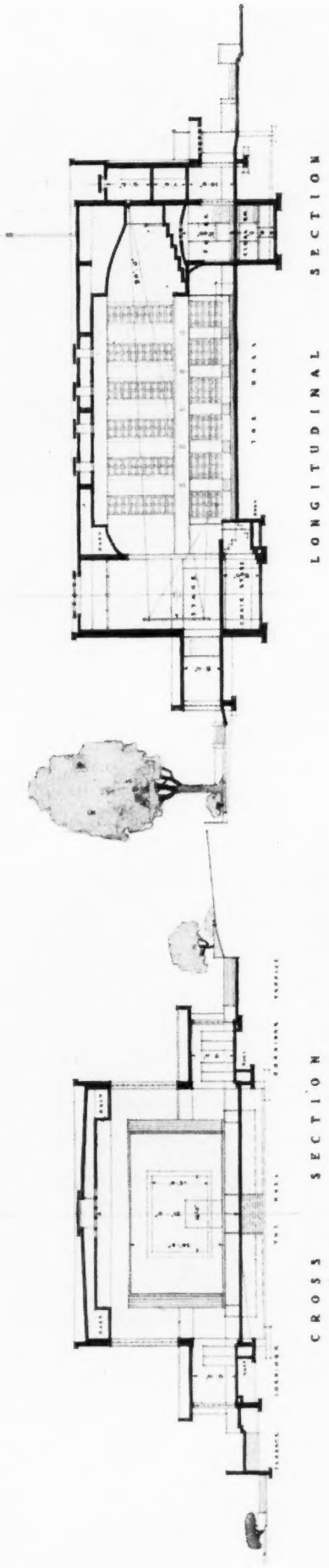
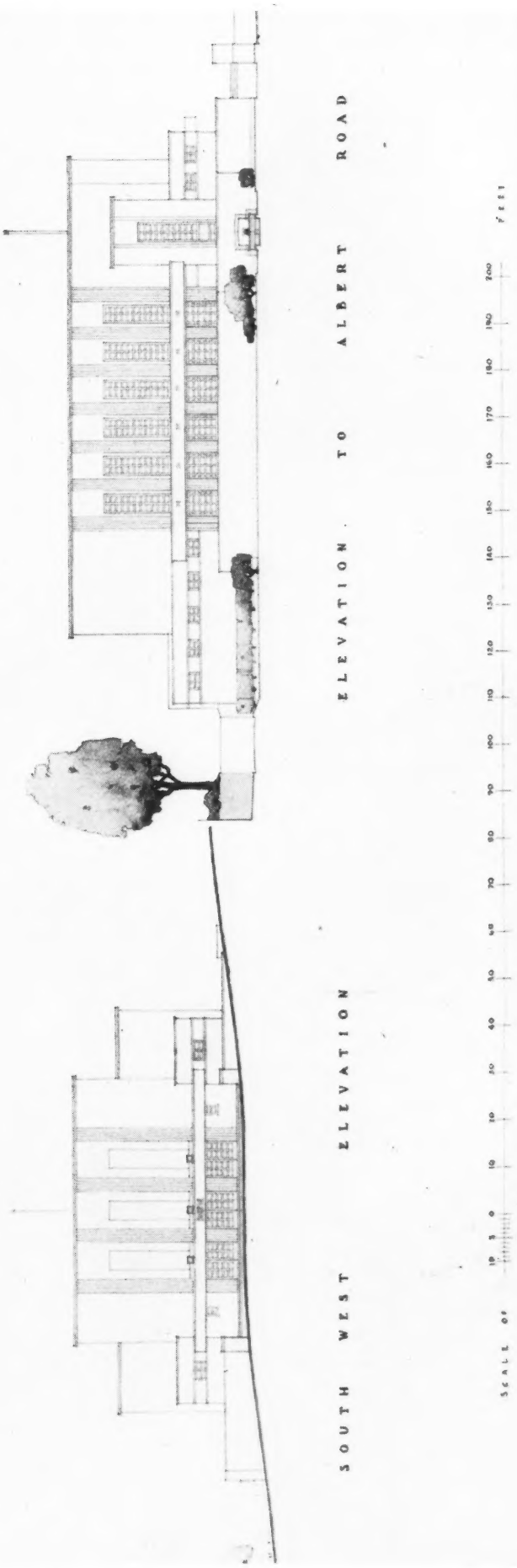
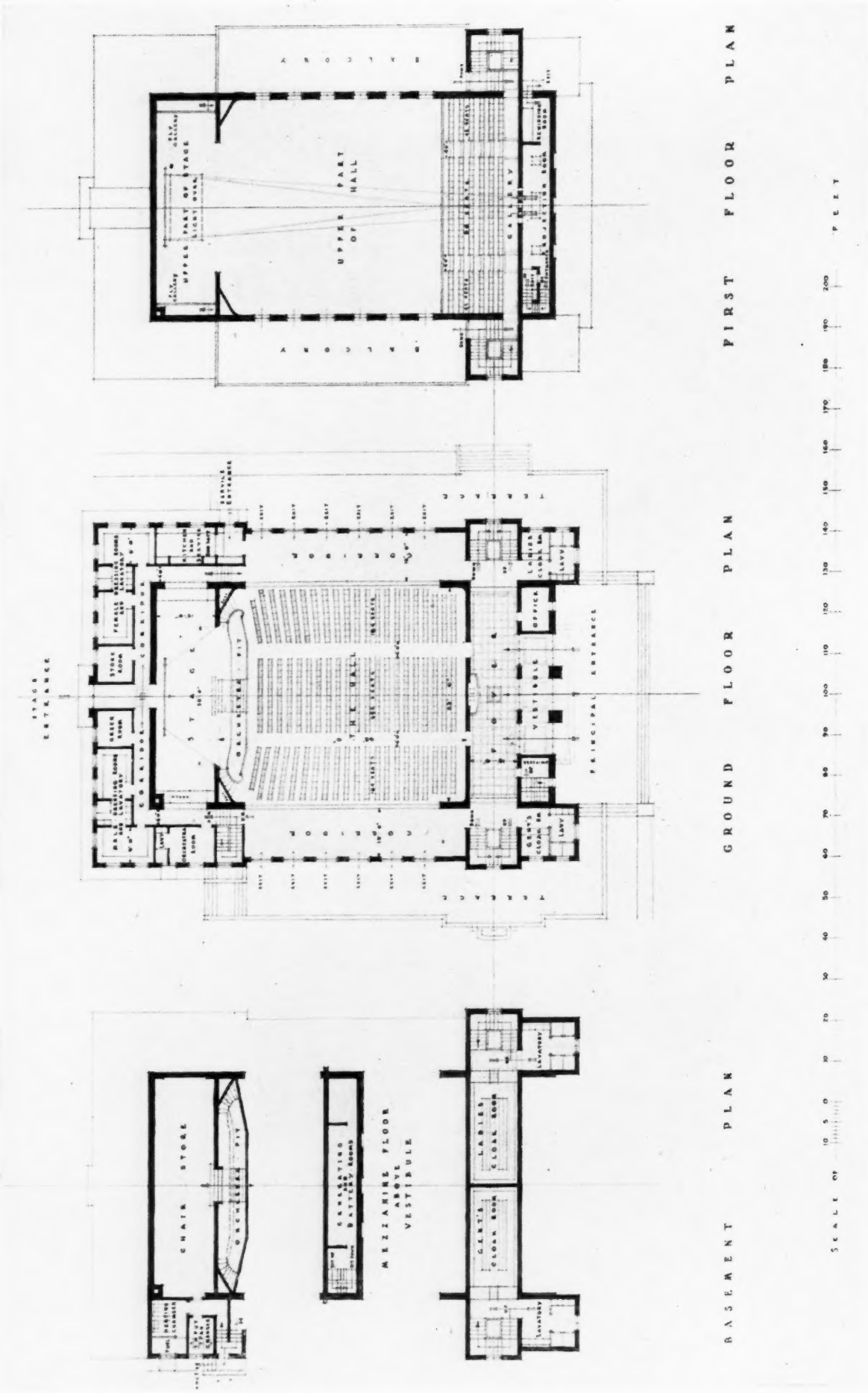




COMPETITION FOR NEW PAVILION AT CRAGBURN, GOUROCK : First Premiated Design.

MESSRS. J. AND J. A. CARRICK, L. and A.R.I.B.A., Architects.

(See page 327.)



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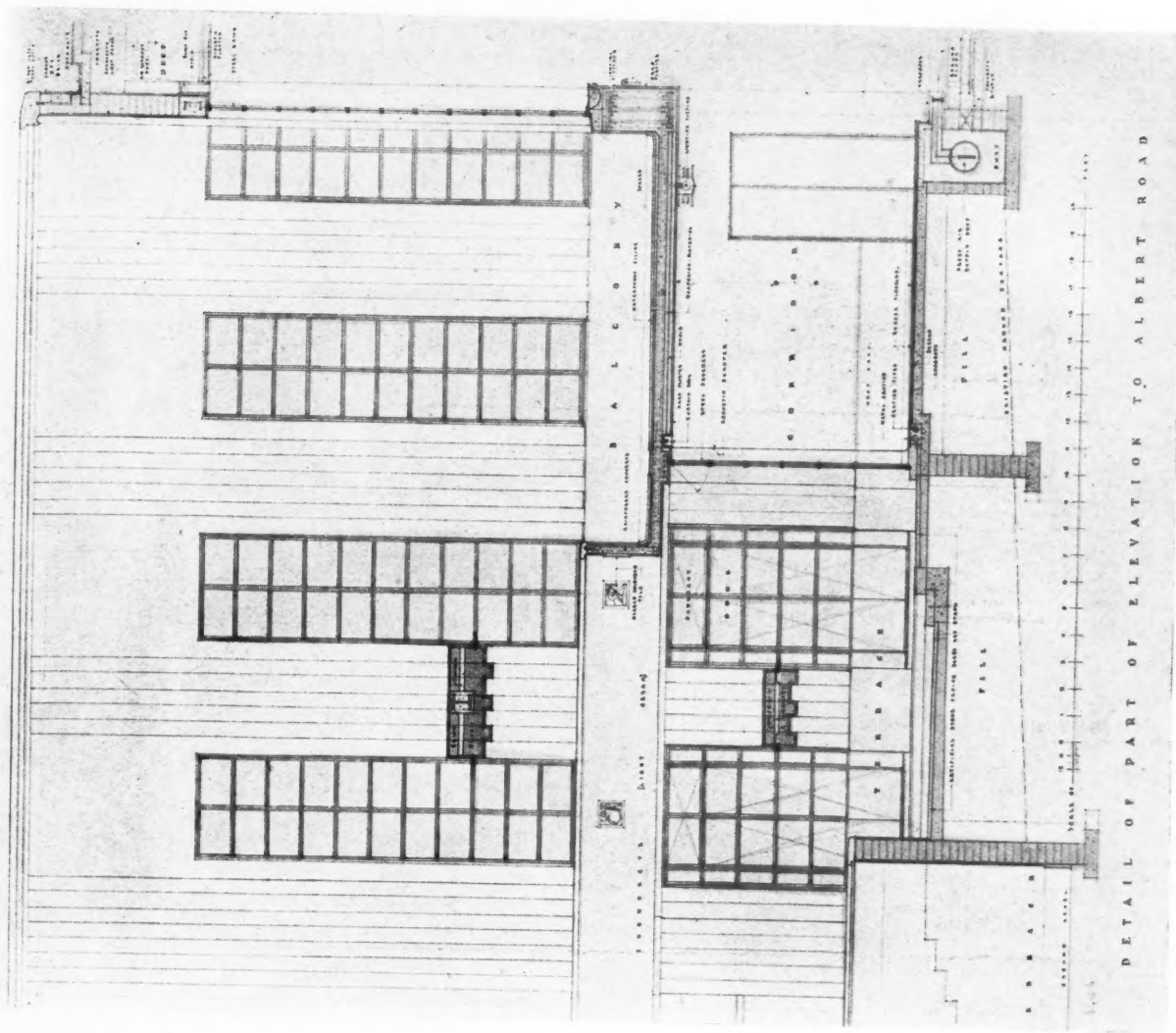

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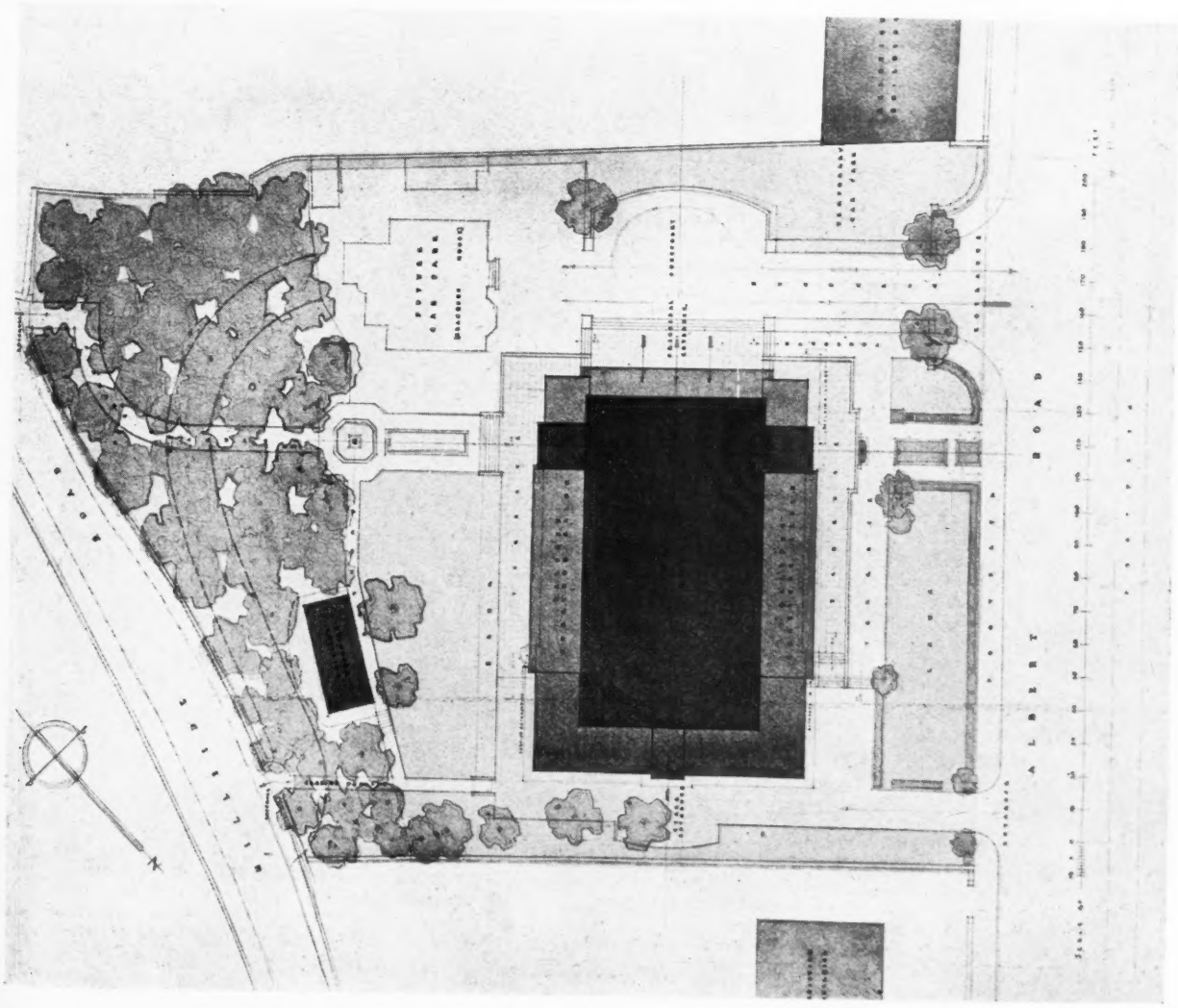

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(See page 327.)

ENTRANCE FRONT.

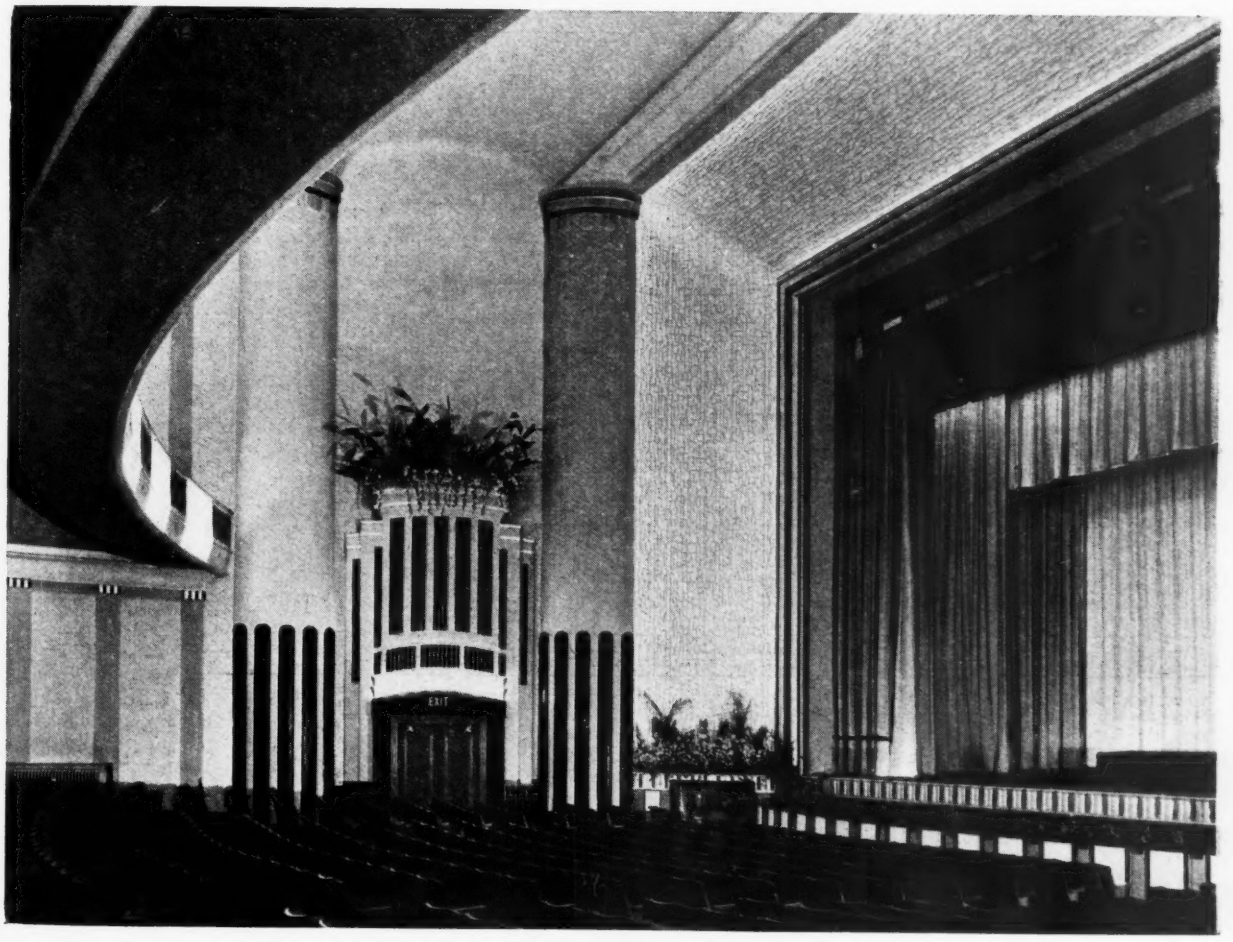
CRUSH HALL.

THE "MAJESTIC" THEATRE, SOUTH WOODFORD.

MR. S. B. PRITLOVE, L.R.I.B.A., Architect.

(See page 327.)

BALLROOM

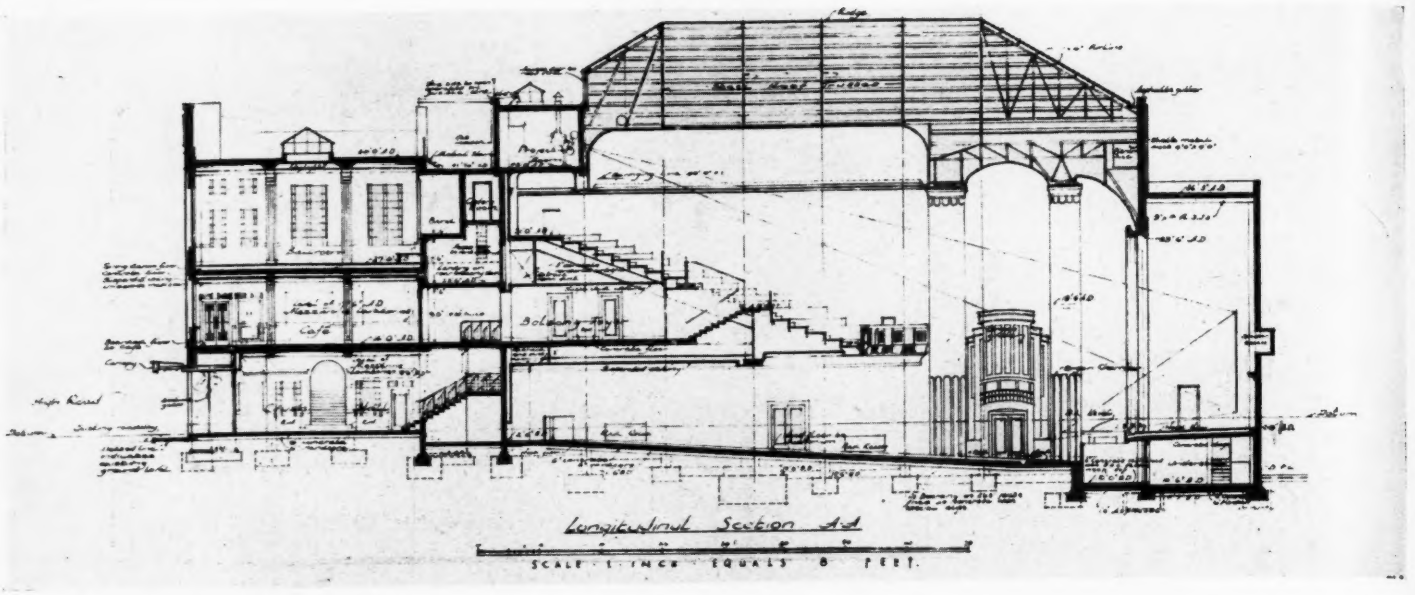


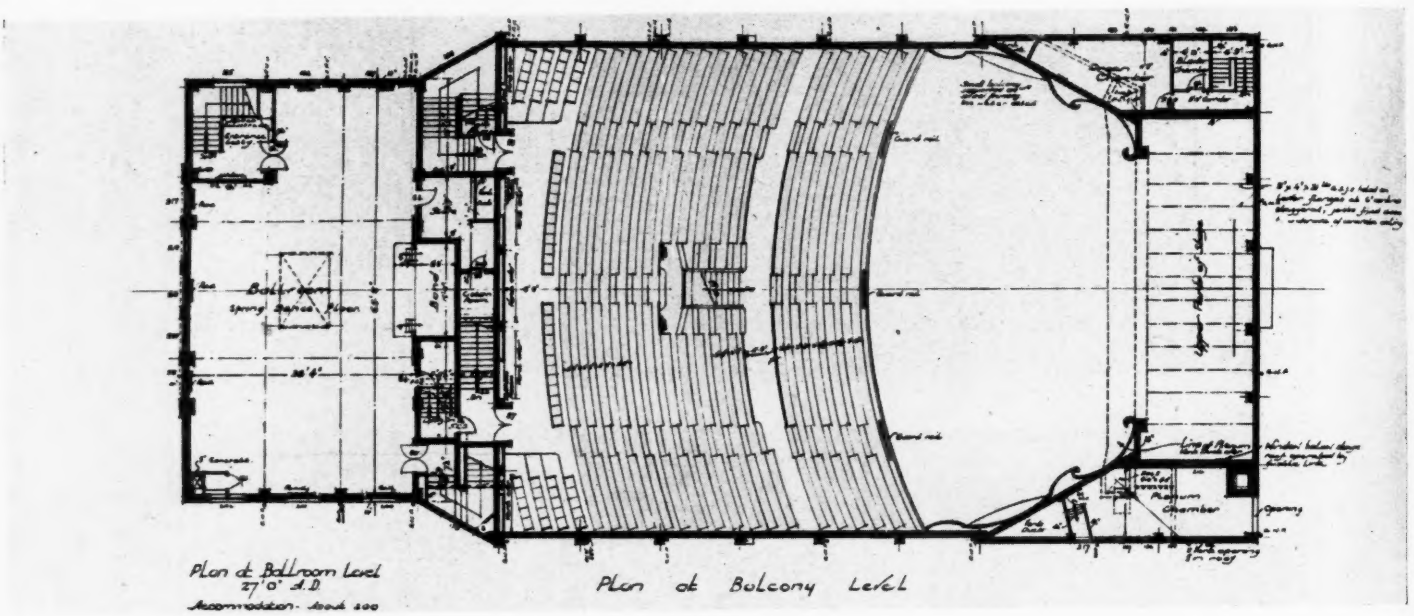
AUDITORIUM, STALLS LEVEL

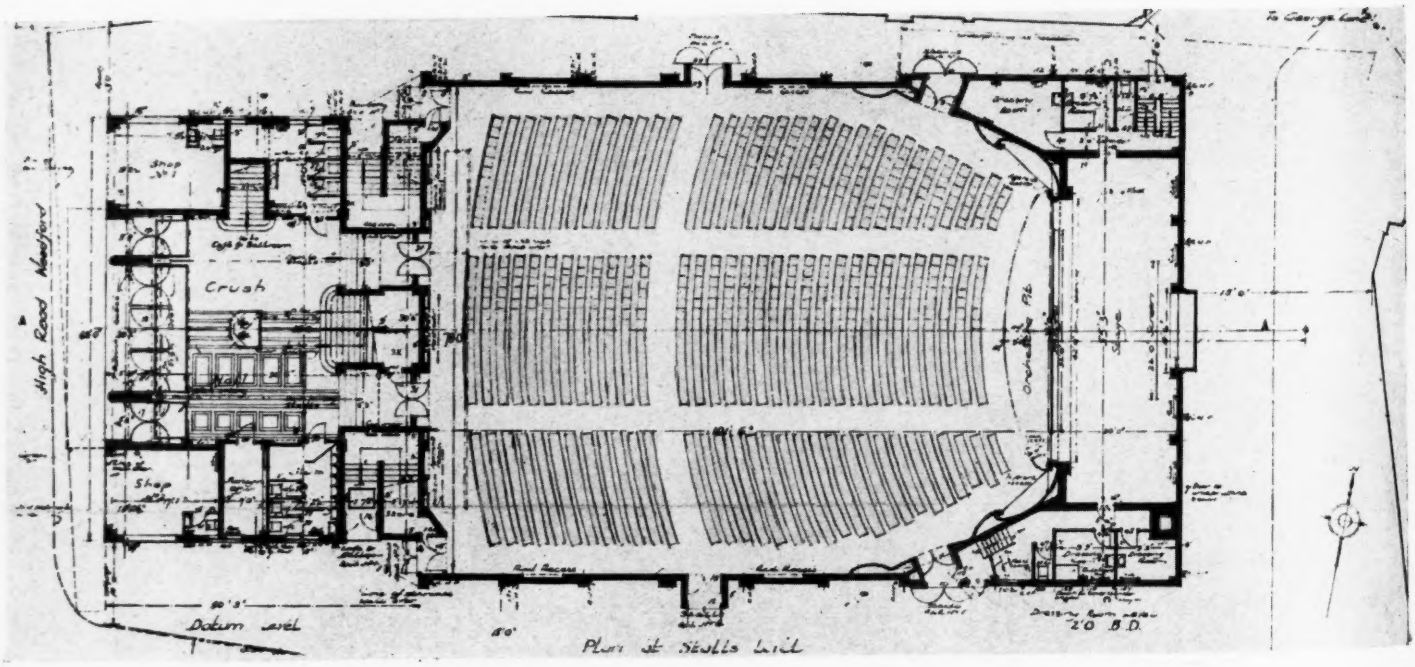
THE "MAJESTIC" THEATRE, SOUTH WOODFORD.

MR. S. B. PRITLOVE, L.R.I.B.A., Architect.

(See page 327.)







THE "MAJESTIC" THEATRE, SOUTH WOODFORD.

MR. S. B. PRITLOVE, L.R.I.B.A., Architect.

(See page 327.)

ILLUSTRATIONS

PLATES

Designs for Messrs. Holdron's, Peckham.

Messrs. T. P. Bennett, F.R.I.B.A., and Son, recently prepared four perspectives of designs for the rebuilding of Messrs. Holdron's premises at Peckham, and upon these the public were invited to vote. Designs A, B and C are attempts at the solution of the problem of rebuilding the shop in three sections, embodying in each case a building of normal height and dimensions. Designs A and B would be executed in buff glazed terra-cotta, with certain portions, including the name, in green and the shop front in bronze. A continuous marquise would be erected at street level to protect shoppers. Design D is on the principle that vertical communication to-day is more rapid and more convenient than horizontal communication. By allowing the store to occupy a small area and increasing its height, shoppers would be able to know before entering the store the location of the particular department with which they proposed to deal. The departments would be indicated externally on the square blocks shown opposite each floor level. The first floor would be devoted entirely to arcade windows and would have no shop behind it, and the ground floor would contain the shopping area and escalators taking the public to the first floor for the purpose of window inspection. A building of this character would increase the sunlight and air in the street by decreasing the height of the major portion of the façade, and would provide more light and air in the store by raising the height of the majority of the departments above the general level.

The voting was as follows:—A and C together, 1,200; B, 5,184; D, 5,200.

Competition for New School, East Barnet.

We illustrate this week the winning design in this competition, by Mr. W. F. Granger, F.R.I.B.A. (of Messrs. Leathart and Granger). The elevations have been treated in a simple manner, as requested by the Hertfordshire County Council. Stone has been reserved solely for plinths and copings, with a little to emphasise the main entrance. The windows are steel casements in oak frames, and all external doors are in oak. A good hand-made multi-coloured brick is proposed for the external walls, and similar hand-made, sand-faced tiles for the roofs. A flêche has been provided to house the bell and clock. It is felt that as this school is on back land, the principal elevation should face the playing fields, and with this in view the school has been planned giving a fine terrace in front. The approximate cost of the building is £30,000, and it is intended to proceed with its erection at once.

Reinforced Concrete Flats, St. Pancras.

The illustrations which we give are from a model of proposed new reinforced concrete flats, designed by Messrs. Connell, Ward and Lucas, for the St. Pancras Housing Improvement Society. It is proposed to build two blocks of sixteen flats each, similar in character to the design shown in the illustrations. The cost of the scheme, we understand, would be such as to allow a rental of 4s. 6d. per week inclusive for habitable rooms, and this would be reduced by rent allowances.

Belmont Council School, Harrow Weald.

This school has been built on a site of about 7¼ acres, and is approached from Fisher-road. It is designed to accommodate 440 senior boys and 440 senior girls in separate departments. The general plan of the school surrounds a quadrangle, with all the classrooms facing south-east, and the special subject rooms facing north-east and south-west. Facing the approach road and axial with it is the tower, in which is placed, on the ground floor, the main entrance hall, and adjoining this are the head master's and head mistress's rooms.

On the ground floor there are two assembly halls, and at the end of one there is a stage with proscenium fitted with sliding doors; this enables the stage to be used as a classroom. The two halls are divided by a folding partition, which can be withdrawn to form one large hall. Close to the hall is a school kitchen where hot meals can be prepared.

There are two domestic science rooms, each accommodating 20 pupils, and adjoining these there is a model flat, fully equipped for the teaching of housecraft. Manual training rooms for wood and metal work are provided. Art rooms, science rooms and craft rooms for each department are situated on the first floor. The men and women teachers' staff common rooms are placed in the first and second floors of the tower, with tank and store rooms above.

The construction of the building is highly fire-resisting, the walls being of brick, and the floors, flat roofs and staircases of reinforced concrete. The internal finish, of distempered brick walls, Granwood block flooring, stained pine woodwork, has been chosen for economy, durability and hygiene. All doors are of the flush type, and dust-collecting mouldings have been eliminated as far as possible. The heating is by low pressure hot water from coke-fired boilers, and the artificial lighting by electricity.

The work was carried out to the design and under the supervision of the County Architect, Mr. W. T. Curtis, F.R.I.B.A., and Mr. H. W. Burchett, A.R.I.B.A., Assistant Architect for Educational Buildings, at a cost of approximately £29,735, the general contractors being Messrs. Kirk and Kirk, Ltd., of Putney. The clerk of works was Mr. C. H. Weaver.

Following is a list of the principal subcontractors: Comyn Ching and Co., Ltd., heating and hot water installation; G. A. Weston, electrical installation; Gas Light and Coke Co., gas services; J. Wainwright and Co., Ltd., tarpaving; J. Thompson (Beacon Windows), Ltd., metal windows; W. Salter Edwards and Co., Ltd., asphalt; Vigers Bros., Ltd., flooring; Indented Bar and Concrete Engineering Co., Ltd., concrete reinforcement; Central Joinery Co. (1927), Ltd., Perivale, flush doors; The Educational Supply Association, Ltd., proscenium doors and framing, sliding partition, etc.; T. A. Harris, Ltd., sanitary fittings; Malcolm Macleod and Co., Ltd., Walthamstow, artificial stonework; Henry J. Greenham, Ltd., facing bricks; J. A. King and Co., Ltd., roof lights; Carter and Aynsley, Ltd., general ironmongery.

New Pavilion, Gourock.

The full award in the competition for this pavilion was given in our last issue, and we now illustrate the first premiated design, by Messrs. J. and J. A. Carrick, L. & A.R.I.B.A. Accommodation is provided in the hall on the ground level for 620 persons and on the small balcony for 180. The building is to be set back 60 ft. from the main road, and the space between will be laid out as ornamental gardens. The cost is estimated at £10,000. Erection is to be begun as soon as possible.

The "Majestic" Theatre, South Woodford.

The main entrance to this new cinema is in High-road, South Woodford. There is also an entrance in George-lane and a wide exit for motor cars into George-lane. A car park provides accommodation for four hundred cars.

The building is of steel frame construction. All the floors are of reinforced concrete, the balcony steppings being of reinforced concrete cast *in situ*. The balcony, seating 656 people, and the balcony foyer below, including cloakrooms and staff rooms, are mainly supported on one steel girder over 81 ft. long and 8 ft. deep. The projection room, which overhangs the rear of the balcony, is supported on a steel-framed lattice girder also over 81 ft. long and 11 ft. deep.

The main elevation faces towards the High-road and is set back 54 ft. from the roadway behind a broad green forecourt planted with trees and having a drive in for cars. The front elevation is carried out in glazed cream coloured faience with black and red pilasters between the windows to café and ballroom, specially designed to incorporate "Neon" lighting. Over the entrance is a metal canopy finished in bright colours with panelled soffit brilliantly illuminated at night. The front of the canopy is prepared to receive illuminated lettering for the announcement of future films. On either side of the entrance are shops. Separate entrances are provided for the café and ballroom. The remaining elevations are erected in Midhurst White bricks, with brown brick bases and string courses.

The crush hall is approached through an entrance vestibule lined with cream faience and paved with black and coloured tiles. This is entered through five pairs of wide, glazed, polished oak doors, and above the doors there is provision for the announcement of coming attractions. Entered off the crush hall, ample cloakroom accommodation is provided, and also at the café level. A wide central staircase leads up to the balcony and café; a short flight of four steps each side leads down to the two stalls entrances. On the left-hand side of crush hall a separate staircase gives access to the café and ballroom.

The auditorium provides seating for 1,724 people, the stalls alone accommodating 1,068. The balcony is entered from a spacious foyer, and has seating accommodation for 656 people. A large elevated stage is provided upon which variety turns can be given.

A soft lighting effect is obtained by troughs around the ceiling in front of the proscenium and around the main ceiling, and is augmented with laylights under the balcony. The walls are finished with a textural surface of peach colour relieved in beige and red; special decorative lines and effects in vermilion and black are continued throughout in the balcony front, carpets, curtains, etc.

The café is a large, well-lighted room with seating accommodation for over 150 people. A ballroom is provided above the café for the accommodation of over 250 people.

Mr. Basil Davis, A.M.I.E.E., was the consulting electrical engineer.

Messrs. Greenham Demolition Co., Ltd., were responsible for demolition, and Messrs. L. and W. Whitehead, Ltd., were the building contractors. The following firms were also associated with the work:—Peirson and Co., Ltd., steelwork; The Strand Electric Co., Ltd., electrical work; Edgar Fitton and Co., Ltd., Manchester, heating and ventilation; Pixtons, Ltd., carpets, curtains and drapes; The County of London Electric Co., electric supply; F. Dejong and Co., Ltd., decorations; Clark and Fenn, Ltd., fibrous plaster; Garton and Thorne, Ltd., canopy and metalwork; Brilliant Neon, Ltd., "Neon" signs; James Clark and Son, Ltd., mirrors; J. R. Pearson (Birmingham), Ltd., radiator grilles and flower boxes; Falk, Stadelmann and Co., Ltd., electric light fittings; Hailwood and Ackroyd, Ltd., moulded glass leaves to cornices; Honeywill and Stein, Ltd., acoustic plaster; R.C.A. Photophone, Ltd., "talkie" apparatus; Diespeker and Co., Ltd., wall and floor tiling; Francis Morton, Junior, and Co., dance floor; Stevens and Adams, Ltd., oak flooring; Robert Adams, ironmongery; The Leeds Fireclay Co., Ltd., terra cotta ware; Roberts Adlard and Co., Ltd., roof tiling; Wotton and Son, West Croydon, glazings; W. James and Co., Ltd., metal windows; Mellowes and Co., Ltd., lantern lights; Arthur R. H. Maxted, Ltd., metal handrails, etc.; The Bostwick Gate and Shutter Co., Ltd., collapsible gates; The Trussed Concrete Steel Co., Ltd., balcony construction and "Hyrib"; The Automatic Sprinkler Co., Ltd., hydrants and fire appliances; John Bolding and Sons, Ltd., sanitary fittings; J. C. Spooner and Son, Ltd., plumbing; Aldous and Campbell, Ltd., service lift; Kershaw Projector Co., "Kalee" projectors; F. Bradford and Co., Ltd., reinforced concrete steps, etc.; R. J. Goddard and Co., Ltd., asphalt; The Midhurst Brick Co., Ltd., white bricks; T. M. C. Harwell (Sales), Ltd., electric clocks; C. and R. Burrell, shop fronts.

Mr. S. B. Pritlove, L.R.I.B.A., is the architect.

WATERLOO BRIDGE: THE METHOD OF DEMOLITION

At the invitation of the London County Council, a Press visit was made on Friday, February 8, to view the progress of, and arrangements made for, demolition of Waterloo Bridge, in connection with which some official notes were provided, from which we take the following extracts :—

Rennie's massive bridge of stone is safe so long as one arch pushes against the next arch, but in a series of arches the failure of one has led in several instances to the collapse of adjacent arches. For safety the balance of arch thrusts at each pier must be maintained throughout the work. These thrusts will vary as the work proceeds, gradually getting less and less as the materials in the bridge are removed; the danger, however, does not lie in the magnitude of thrusts but in the magnitude of any unbalanced thrusts.

Safety is of first importance, but coupled with safety is the necessity of avoiding further obstruction to the river traffic. During demolition, support must be provided for the arches, except in the case of the centre arch which has been propped for some years past. If this support were given from the sides or from below, it would mean further obstruction in the river to traffic. The arches are, therefore, being supported from above by bridging from pier to pier with temporary steel trusses from which is slung a steel supporting structure, or centering, of narrow depth drawn up close to the underside of each arch. In order to economise in the amount of temporary steelwork required, the operations are so planned that the bridging action of the arches is retained until some two-thirds of the stones at each arch have been removed. A similar arrangement at the arch over the Victoria Embankment enables the work to proceed without interruption of road traffic.

The various operations are described more fully below.

Work on the demolition began on June 20, 1934, and is expected to take 21 months to complete. The number of workmen engaged on the site is about 350, exclusive of office and supervisory staff.

Removal of Top Hamper.

The materials in balustrades, frieze, cornice, pavement and roadway, and the clay filling beneath the roadway have been taken up. These materials were removed by road, with the exception of the balustrades, which were offered for sale at the bridge to the general public and for which a ready demand arose. The removal of the above materials was " controlled " so as to ensure that no arch was lightened with respect to those adjacent by more than a predetermined safe amount. The centre arch, however, which is distorted owing to the unequal sinking of its piers, and which has been propped for many years, has not been lightened to the same extent as its neighbours, but carries specially adjusted loads to conform to the distorted shape of the arch.

Preparations for Removal of Arches.

During demolition, the arches will be supported from above, except the centre arch (No. 5), which is already propped from below. For this purpose a series of temporary steel trusses or gantries (described below) has been erected spanning eight of the nine arches, i.e., four on each side of the central arch. Holes have been drilled vertically down through the masonry arches, and suspension bars hang from the steel trusses through these holes and protrude from the underside of the arch masonry. Steel centering (described below), that is, a supporting structure shaped to the arches, is drawn up close to their undersides and held in position by the suspension bars. Where the arches merge into the piers, the arch stones will be supported independently of the suspended centering by timber baulks tied back to the piers by inclined suspender rods.

Temporary Steel Gantries.

The temporary gantries consist of sets of four steel trusses braced together and supported on concrete pedestals at the piers, forming a bridge over each of the eight spans. Four travelling cranes travel on the top of the trusses and will handle the material for removal into barges. The temporary gantries have been designed with a view to enable them to be dismantled without support from below, as the arches will by then have been removed.

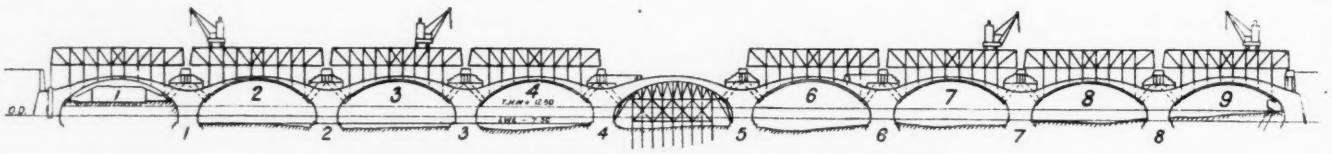
Suspended Centering for River Arches.

The centering consists of thin steel plating fixed to a system of cross members and steel ribs shaped to the curve of the arch. The centering projects beyond the sides of the arches so as to form a convenient gangway for access to the outer stones. The centering is constructed in panels, or sections, of convenient size. These panels are erected on a pontoon, and after floating under the arch are lifted on temporary frames into position and bolted up to the bars which have been suspended from the gantries. The centre arch (No. 5) being already propped is not being further dealt with at this stage, except to adapt the propping to suit requirements.

Suspended Centering for Embankment Arch.

The steel centering, etc., at this arch is designed so that during erection and throughout the demolition operations traffic will be maintained along the Victoria Embankment and sufficient headroom allowed for trams and buses. Covered ways have been provided for pedestrians. The arrangements are the same in principle as for the river arches, but the centering consists of six steel girders spanning the Embankment roadway to which the necessary cross girders and steel plating, together with a protective timber ceiling, will be added when the girders are in position over the Embankment roadway.

The girders will be constructed on the old bridge and lowered in succession over the side of the Embankment arch on to timber supports or runways which have been prepared to hold the girders at the proper height to clear traffic. These runways extend under the arch, parallel to the kerb lines, and have been arranged to give the minimum of interference with the carriageway. When the cross girders, plating and timber ceiling have been fixed between the first pair of girders, these will be moved in under the arch sufficiently far to enable a third girder to be lowered on to the runway. The cross girders, etc., will be added as before, and the



Diagrammatic Elevation, showing Method of Demolition.

ARCH No. 7 OF WATERLOO BRIDGE, SHOWING STEEL CENTERING (TAKEN JANUARY 31)

MESSRS. RENDEL, PALMER AND TRITTON, Consulting Engineers.

process repeated until the full centering is completed and in position. The whole will then be raised by jacks for the necessary few inches to gain contact with the arch masonry, and will then be attached to suspension bars similar to those at the river arches.

As a protection against masonry spalling off and falling on to the Embankment during the drilling of the holes for the suspension bars in this arch, a temporary "ceiling" will be provided by erecting temporarily the last of the six girders in advance of girder No. 1, and connecting them temporarily by a timber floor. The centering will then be drawn in over the heads of the traffic in stages as described above, and the temporary ceiling will come successively under the lines of suspender holes, which can then be drilled through with safety. No. 6 girder, on its emergence from the far side of the arch, will then be lifted by cranes over the gantry and lowered again on to the runways for erection in its proper place in the centering.

Condition of Masonry: Precautionary Measures.

The centre arch (No. 5) and the next arch to the south (No. 6) are both distorted, and the lower portions of the joints between arch-stones had opened in consequence. An arching effect had taken place in the face masonry above the sunken pier (No. 5) between these arches. This effect has now been eliminated and normal arch action induced by cutting vertical chases in the upper portions of the masonry adjacent to pier 5, after filling with lead the open joints between arch stones already mentioned.

The weights of the gantry girders, centering and part of the heavy arch masonry will at a later stage have to be carried on the old piers unbuttressed by the arches, which will have been removed. The piers are composed of sandstone faced with granite. In order to examine the nature and condition of the interior masonry, holes were bored vertically down into the hearting of the piers and examination made of the joints, etc., by means of an illuminated mirror lowered down the holes. Any voids found in the masonry were later filled with cement.

Special Precautions at Abutments.

At the abutments special arrangements were necessary for supporting the temporary gantries. The upper courses of masonry in the abutments are inclined to the horizontal in a manner adapted for their purpose as abutments, but the masonry would be likely to fail by sliding if subject to heavy vertical loads when the arches are no longer acting. The gantry at the Middlesex abutment is being carried on four reinforced concrete columns constructed in shafts drilled vertically into the masonry to a depth at which the masonry courses are horizontal. At the Surrey abutment, the effect of the sloping courses of masonry will be overcome by buttressing the face of the abutment by concrete carried on inclined piles driven on the foreshore.

Removal of Arches.

When the suspended centering is in position, the arches will be further stripped until only the stones of the arches themselves, or "arch rings," are remaining. The demolition of the arches will be begun simultaneously and uniformly at each arch. Each arch will be treated in three longitudinal strips. The stones in the two outer strips will first be removed by "nibbling" at the masonry, starting at the centre, or key, stones and working evenly towards each pier. During this stage the suspended centering will only be carrying the weight of those stones which are loosened and about to be lifted out. It will be necessary to drill out the keystones, but as each is broken up adjacent stones will become loosened and can be removed. Besides the keystones certain other stones will have to be cut before they can be removed, owing to their being "bonded" into the adjacent stonework.

After the removal of the outer strips, the middle strip will remain as a very narrow arch rather less than one-third of the original width, and its weight will be transferred to the suspended centering by breaking out the keystones, so that the load is now borne by the overhead temporary steel trusses. Once the load is transformed from arch thrust to suspended load, any danger to the structure as a whole is gone. The removal of the remaining arch stones will follow. When the removal of the arches is completed, the centering will be lowered on to barges and towed away and the temporary steel trusses removed.

Removal of Piers.

The demolition of each pier and its foundations will proceed inside a steel sheet-pile cofferdam, and the material will be loaded into barges by means of derrick cranes working from the staging built round the cofferdams. The erection of the staging and the programme for removal of the piers will be so arranged as to cause a minimum of interference with river traffic.

SOCIETIES AND INSTITUTIONS

NOTTS, DERBY AND LINCOLN ARCHITECTURAL SOCIETY.

Mr. C. H. Calvert, President, occupied the chair at the annual dinner of this Society, held in Nottingham on January 17. Those present included the Mayors of Nottingham, Derby and Lincoln, Sir Ian MacAlister, the Sheriff of Nottingham (Mr. W. Birch), and the Town Clerk of Lincoln (Mr. G. H. Banwell).

A special feature of the annual dinner was the presentation by Mr. W. H. Ansell, Vice-President of the R.I.B.A., of a bronze medal to Mr. T. Cecil Howitt, of Nottingham, as the architect of the best building erected in the branch's area during the past three years, namely, the new offices of the Raleigh Cycle Company on Lenton-boulevard, Nottingham, and the presentation by the Lord Mayor to Sir Harold Bowden, managing director of the Raleigh Company, of a plaque to be placed on the building in commemoration of the fact.

"The Royal Institute of British Architects and Allied Societies" was proposed by Sir Harold Bowden, Bart., who said that every age had its own eyesores. If last century was the era of bungled factories, this seemed to be the period of bungaloid dwelling-houses. He was not thinking of the better type of middle-class house, for much of the domestic architecture of the Nottingham suburbs and garden cities was very pleasing, but of the three-figure houses—the dolls' houses which were spreading over our countryside much like an attack of jerry-builders' measles. They might, perhaps, be described as examples of "Noah's Arkitecture." These represented a style that was due to accident rather than design. "This is obviously not the fault of our architects, but of those who *don't* employ them," stated Sir Harold, who continued: "There has been a great deal of talk about legislation to stop ribbon development. Unless some regard is paid to æsthetic values, legislation of this kind will merely control building on by-pass roads but do nothing to stop similar atrocities being thrown up elsewhere."

Mr. W. H. Ansell replied, and, in presenting the medal of the Society to Mr. T. Cecil Howitt, described it as one of the most coveted awards in the profession.

CHARTERED SURVEYORS' INSTITUTION.

Modern Design.

In the course of a recent lecture to the Notts, Lincs and Derby Junior Branch of the Chartered Surveyors' Institution, at Nottingham, Mr. T. Cecil Howitt, F.R.I.B.A., said that for the past generation architecture, like other arts, had aimed at a much more simple and quiet treatment in design as compared with the more ornate and unnecessarily over-ornamented in the Victorian days. Modern paintings, dresses and gowns, and new ideas in furniture had all developed in that way, and relied much more on their effect from refinement in outline instead of from elaborate detail. It was often not appreciated that the shape and arrangement of a plan, and the control of the commercial aspect of the project, were really a much more important part of the duties of an architect than decorative treatment. "Curious as it may seem," the lecturer continued, "it is still often felt that an architect's duty is to add unnecessary ornament and frills to a scheme, whereas the real problem lies in the close study of the duties and functions of a building, the work or play of its occupants, so that the plan and arrangement is modelled in the most up-to-date manner, not only to give efficient production results, but a healthy and cheerful life for the people in the building. Definite architectural styles, as they are genally known, have, for some time disappeared, and modern designs become, in effect, neat, orderly, and well-balanced treatments of the essentials in any particular building scheme.

Influences on Design.

"My own opinion is that modern building design has been most greatly affected by four important features: Economy in construction; modern materials; electricity; and transport. Every square foot of floor area or every foot of cubical contents of a building adds proportionately increased costs, and the greatest difficulty in modern design is to arrange each room and wing of a house, or each department of any large commercial building in the best possible position with a minimum of waste space, to effect economy.

"The economic aspect of repetition is well known to all, and this, when applied to building design, tends to produce a much more simple but none the less effective, treatment, and the high cost of first-class decorative work in practically all types of building materials has resulted in enrichments and ornamental work being much more sparingly used.

"Forty-five years ago steel was used for the first time in Chicago to form the steel bones or frame of a building, and at the present time hardly any modern building of any size is without its steel frame, and the time is not far distant when the introduction of bolts and rivets will entirely disappear for the more up-to-date method of welding the whole of this material together. Lines of steel frame in the floors and walls of a building drive one to simplicity in treatment.

"During the last half-generation timber work has developed in a similar manner. Fortunately, many of our colonies are producing both softwoods and hardwoods, particularly adaptable for constructive timber and finished joinery. The use of narrow board widths which necessitate the building up of panels in doors and screens and similar work, has now given way to large plain surfaces. Large sheets of plywood, laminated boards and composition boards require a very much broader and simpler treatment, and at the same time a treatment that can be much more rapidly constructed.

"The manufacture of glass of all types, sizes, thicknesses and varieties of colour has enabled this to be more freely used."

Everyone had hoped, continued the lecturer, for a long time that electricity would rapidly become very much cheaper, but in spite of its extensive use that ideal had not materialised. Its use and features, however, played a great part in modern design; the charm of indirect lighting, sunshine effects, the setting back of portions of the building to exploit floodlighting, and the use of lines of "Neon" light in lieu of mouldings, all led to simple plain surfaces and a logical and studied treatment.

An Architect's Estate.

Mr. Percy Henry Adams, F.R.I.B.A., of Great Russell-street, W.C., who died on October 17, aged 64, left property of the gross value of £27,991, with net personalty £14,776. He left, among other bequests, £500 to the Architects' Benevolent Society.

ARCHITECTURAL LIGHTING CONFERENCE

THE third architects' conference, a direct result of the formation of the Joint Committee of Architects and the E.L.M.A. Lighting Service Bureau, was inaugurated on February 4 with a paper on "The Technique of Lighting" by Mr. W. J. Jones, M.Sc., M.I.E.E.

Lighting, said the lecturer, whether natural or artificial, entered fundamentally into architecture. From the architect's point of view there were two aspects of the lighting problem, namely, the utilitarian aspect and the æsthetic aspect. It would be readily agreed that these aspects were complementary; while there was no excuse for a design which was æsthetically unsatisfactory, it was equally important not to go to the other extreme and provide a design which, while æsthetically sound, was totally inadequate from a utilitarian point of view.

Modern lighting schemes, involving large luminous or illuminated surfaces, are increasingly common, but some of the pioneers designing such schemes had been criticised for producing effects which, while attractive, proved unduly expensive to instal and maintain. The economic aspect of lighting was one to which both professions must give the closest possible attention. In lighting, as in all problems, it was needful to retain a balanced perspective. Appropriations were inevitably too small when lighting was looked upon as an auxiliary service which could be considered towards the end of the scheme.

Factors Affecting Lighting Costs.

In order to appreciate the economics of the problem, it was necessary to separate capital costs and running costs. We were all familiar with cases where a low capital expenditure might save pence and lose pounds in running costs. In fact, there was an economic balance between capital expenditure and running costs. Those who were installing plant seldom got a full perspective, since if they were lucky they had been paid their fees before the client met the running charge. Badly planned installations, however, might bring about loss of confidence and future commissions. By skilful design the efficiency of an installation could be increased, with consequent great economy in operating costs. Capital costs were affected by (*a*) system of lighting employed; (*b*) type and size of lamps; (*c*) type and size of reflectors, etc.

Running costs were affected by (*a*) utilisation of efficiency system employed; (*b*) efficiency of lamps used; (*c*) efficiency of reflectors; (*d*) cost of electrical energy; (*e*) ease of maintenance and freedom from depreciation. In essence, an efficient lighting scheme should provide a given amount of light at the place it was required for the minimum cost, taking into consideration all the above factors. In general, however, it was safe to say that the efficiency of lamps and the lighting equipment used for a particular type of system were factors which had the greatest economic bearing on running costs. That was due to the fact that in producing light energy costs were usually eight to ten times as great as the cost of lamps. It therefore followed that an efficient lamp, while more expensive in first cost, might save its value many times over when taking into consideration the energy it consumed throughout its life. One of the outstanding features of the last twelve months had been the introduction of the coiled-coil filament lamps. Conserving heat energy by the process of coiled-coiling, the filament brought about an improvement in efficiencies ranging from 10 per cent. to 20 per cent. increased amount of light for same guaranteed life.

For many years striplight lamps had enjoyed popularity on account of the ease with which they could be installed in confined spaces. In fact, in many instances they provided the only solution for difficult lighting problems. It should, however, be borne in mind that these lamps were less efficient than ordinary standard gas-filled lamps, and for that reason the wise architect would only use them when it was absolutely necessary to restrict the dimensions of cornices, etc. If it was possible by some slight amendment of a design to employ standard lamps, clients would obtain the advantage in reduced capital costs as well as reduced running costs for the given amount of light. During the past twelve months manufacturers had produced the so-called "architectural lamp," which, on account of its construction, provided a means of obtaining continuous lines of light. Its advantages in those designs where the lamp could be exposed to view were manifest. He would remind them, however, that to instal lamps of that kind in cornices where they were concealed from view was only warranted in those cases where it was necessary to meet with difficult physical or constructional considerations. The same remarks applied regarding the use of those lamps when concealed from view, generally since they were less efficient and more costly than ordinary standard lamps. It was obvious, however, that when architectural tubular lamps were exposed to view, one was more concerned with their effectiveness as a means of decoration than their efficiency as lighting fixtures.

Apart from the costs of electricity and lamps, the type of lighting system would determine the average running cost for a given standard of lighting. That was especially true when thinking of the utilitarian aspects of the problem where a given amount of light was required on tables and benches. It was obvious that those systems of lighting which directed light solely to those areas would do so most efficiently, but in doing so the rest of the room would be left in darkness and the installation prove quite unsuitable and ineffective on account of its appearance. So in comparing costs one should consider effectiveness as well as "engineering efficiency." Following were some approximate comparisons assuming similar utility lighting to be obtained from each under average conditions of ceilings and walls.

GENERAL LIGHTING—approximate running cost taken as 100. In such systems the light was usually provided from opal glass fittings, two-thirds of the light of the lamp was directed to walls and ceilings and there redirected, while one-third of the light was directed downward.

SEMI-INDIRECT LIGHTING SYSTEM.—Relative cost was 31 per cent. greater than with the general lighting system. In that case less light reached the plane of work directly, the bulk of the illumination being obtained after reflection from walls and ceilings.

INDIRECT.—Approximate running cost was 44 per cent. greater than with the general lighting system. In that system all the light was directed to ceilings and walls and was there reflected to the plane of work.

Lighting From Cornices.

At the present time, the lecturer emphasised, one could obtain some 300 candle-power hours for 1d., compared with only 100 candle-power hours in 1922. It was for that reason that indirect lighting from cornices had become a practical proposition in so many cases. In fact, totally indirect lighting, unless providing an illumination of between 5 and 8 foot candles, appeared depressing even in a light-coloured room. Recent reductions in the cost of producing light made it economically possible to provide satisfactory indirect lighting installations.

In giving some hints for making effective cove lighting and cornice lighting, the lecturer said that the designer should provide lighting from the largest size of lamp possible in the place of a larger number of smaller lamps. Larger lamps were inherently more efficient. For example, the running cost of lighting a room with ordinary 40-watt lamps instead of 100-watt lamps would be 40 per cent. more, while the capital expenditure might be several times as great. The new coiled-coil lamps in the 40, 60, 75 and 100-watt sizes helped the architect should he desire to use smaller lamps in order to obtain special effects.

The architect should design coves and cornices of an open type. That influenced efficiency in two directions. If the cove or cornice was unduly small, it limited the size of lamp which might be employed, and hence put up the capital running cost of the installation, but, of equal importance, a small and restrictive cove acted as a light trap and was, therefore, less efficient. The ideal cove was one in which the light reached the surface to be illuminated directly, or after one reflection from the cove or reflector surface.

The architect should ensure that the cornice level gave a reasonable frieze depth compared with width of room.

The inherent reason for adequate frieze depth was the operation of two laws of light distribution. Firstly, the illumination at a point on the ceiling would vary with its distance from the cornice, and, secondly, the illumination would be proportional to the cosine of the angle subtended by the cornice and the ceiling at that point. If one had to have a small depth of frieze compared with ceiling width, then reflectors should be used which projected light towards the central portion of the ceiling. There was a limit even to that, and before designing lighting cornices with narrow friezes he advised consulting a lighting specialist to see if it could be made a practical proposition using reflectors. One could certainly get up to 10 to 1 for the ratio of room width to frieze depth.

Other things to remember, said the lecturer, were to use mirrored reflectors in all but the simplest installations, and to avoid specular reflections on ceilings showing lamp positions. Such reflections were given when the cornice was too near the ceiling or a glossy finish was given to the ceiling, especially when viewed from a distance. To avoid this the flattest possible paint or distemper should be used, or in very difficult cases the ceiling should be stippled. A second recommendation was to take the cornice lower, which would also make the ceiling brightness more even. A third alternative was to use architectural tubular lamps where only a very limited space was available.

Lighting from Laylights.

The lecturer then gave the following hints for lighting from laylights: (1) Provide easy access for cleaning and lamp replacement. (2) Make the laylight as dust-tight as possible. (3) Always use reflectors giving accurate control of light in the case of open-type laylights. The improvement in efficiency is 100 to 200 per cent. For enclosed laylights the economic justification for the use of reflector fittings depends upon the constructional details and especially the nature of interior surfaces above the laylights. (4) Enclosed laylights are much more efficient than open-type laylights. For rooms used mainly under artificial lighting the open-type laylight is uneconomic. The cost of providing daylight is not warranted on account of the sacrifice of efficiency when working under artificial lighting conditions. The sacrifice is often as much as 75 per cent. in efficiency. (5) Have reasonable height above laylight for installing lamps and reflectors, as this governs the size of lamp which can be used. The less height the more ceiling points necessary to avoid spottiness. (6) Remember that lighting from flush laylight leaves rest of ceiling in darkness. (7) Avoid spottiness due to faulty spacing of lamps.

In the discussion which followed Mr. Howard Robertson said that one of the things that had struck him about cornice lighting was the difficulty of cleaning and the inefficiency which so speedily arose from lack of cleaning when dirt settled on the reflectors or lamps. He therefore stressed the point that adequate provision must be made for cleaning in order to preserve the efficiency of lighting schemes.

Mr. L. H. Bucknell said that unless a room was designed for it from the beginning, the subsequent installation of cornice lighting was apt to be rather unsatisfactory. He did not think the day of the fitting was entirely dead. The present vogue for strip and ornamental lighting might be only a phase.

Mr. M. J. Dawson also contributed to the discussion.

ARBITRATION IN BUILDING DISPUTES—VI

By W. T. CRESWELL, K.C.

THE STATUTES OF LIMITATION.

UNDER section 16 of the Arbitration Act, 1934, an arbitrator may now be called upon to determine at a very early stage in the proceedings whether a claim is barred by one or other of the Statutes of Limitation. These are to apply in arbitration proceedings similarly as they apply in ordinary proceedings in the Courts. And if there is a term in the arbitration agreement making the publication of the award a condition precedent to any cause of action, *i.e.*, that no cause of action shall accrue until an award is made, the term must be disregarded in these circumstances.

The arbitrator, when deciding if the Statutes of Limitation apply, will need to consider carefully the date when one party served on the other a notice to appoint the arbitrator, or, in the case of a nominated arbitrator, a notice to submit the dispute to him. Also, by section 16, an arbitration commences, *for purposes of calculating the period under the Statutes of Limitation*, (1) when one party to the arbitration agreement serves on the other party or parties, a notice requiring him or them to appoint an arbitrator; and (2) in cases where the agreement provides for a named or designated arbitrator, on the date at which such notice requires him or them to submit a dispute which has arisen to the named or designated arbitrator.

The period of limitation for actions arising out of building contracts or for an action of debt upon an award is six years from the accrual of the *cause* of action.

The Hearing.

Under the Arbitration Acts, an arbitration is a private tribunal, but the arbitrator should hesitate to exclude, without adequate grounds, any persons who can show that they have a real interest in the proceedings or whom either of the parties desires to be present to assist in the reference. It has been held wrong to refuse a party the facilities of having a shorthand writer present; but, on the other hand, it has been held that an arbitrator was right in refusing to allow a stranger, skilled in agriculture, to be present at the hearing for the mere purpose of assisting a solicitor, to one of the parties, with practical hints about agricultural matters.

An arbitrator is bound to act fairly between the parties and not show favour to any one party. Should he do, or offer to do, anything for one of them he should do the same or offer to do the same for the others.

He should, from the outset, take full notes of the evidence for his own use and future reference. He cannot order shorthand notes of the evidence to be taken at the cost of the parties, unless they consent to it. On giving that consent, the parties may, at the same time, agree as to who shall finally pay the costs of same, or whether it shall be left to the arbitrator to decide this point, since the cost of taking of shorthand notes and making of transcriptions, etc., cannot be recovered on taxation in the Court, without the direction of the Court

In conducting the proceedings, the arbitrator, being a *quasi*-judge chosen and appointed to decide the questions submitted to him definitely, must, like all other judges, observe in the proceedings, as far as is practicable, the ordinary rules which are laid down for the administration of justice in the trial of an action. It is the duty of the Court, if called upon to review the proceedings of an arbitration which has been, or is being, held, to see that these rules have been followed (see *in re* Haigh *v.* Haigh (1861), 31 L.J., Ch. 420).

The arbitrator may, however, make such minor deviations from the rules of the Court as will not set aside the substance of justice. In Knox *v.* Symmonds (1791), 1 Vic., 369, Lord Thurlow said: "Upon a general reference to arbitration of all matters in dispute, the arbitrator has a greater latitude than the Court, in order to do complete justice between the parties. But the principles and the substance of justice must not be disregarded." In Andrews *v.* Mitchell (1905), A.C. 78, Lord Halsbury said: "We must not insist upon a too minute observance of the regularity of forms among persons who naturally by their education, or by their opportunities, cannot be supposed to be very familiar with legal procedure, and may accordingly make slips in what is a mere matter of form without any interference with the substance of their decisions. I should be anxious myself, as I have no doubt all your lordships would, to give every effect to their decisions; on the other hand, there are some principles of justice which it is impossible to disregard."

Under section 11 of the Arbitration Act, 1889, the Court had power to remove an arbitrator who had been found guilty of misconduct. Under section 15 of the new Act of 1934 their powers are further added to, so that the Court can now remove an arbitrator who has misconducted the proceedings and can set aside his award if he is found to have misconducted himself or the proceedings.

Time and Place of Hearing.

When an arbitrator has a discretion to fix the time and place of hearing, he should do so by sending a notice thereof to each party to the dispute; and he should, so far as is possible, make both time and place equally convenient and reasonable for all the parties. If the reference is to two or more arbitrators, all should concur in these arrangements before sending out the notices. If any one of the parties wilfully obstructs the proceedings an arbitrator can act arbitrarily, but he is not justified in proceeding *ex parte* with the references without giving notice of his intention to do so; if he does, his award may be questioned. Furthermore, although an arbitrator is entitled to use his discretion in granting or refusing an application from either of the parties for a postponement or adjournment of the proceedings, he should consult all the parties before making any such order to postpone or adjourn. He should proceed with the reference unless satisfied that there is a satisfactory reason for delay; and he should be proof against any attempt on the part of any of the parties to defeat the object of the reference by such an application.

The general usage is that, with few exceptions, an arbitrator must not hear one party or his witnesses in the absence of the other party or parties or their representatives; if he does so, there is a danger of his award being set aside.

The Party to Commence in the Proceedings.

The arbitrator determines which party is to be the first to commence at the hearing. Generally the preference is to the claimant; for it is upon him that the onus of proof, or the affirmation of the issue, lies.

Each of the parties may conduct his own case, or appear by counsel or a solicitor. Sometimes in building disputes a builder prefers to instruct an architect or another builder to appear for him; and, similarly, an architect may advise that an architect should be the advocate for the employer. However, it is in such cases the arbitrator should not allow any such other builder or architect to be both advocate and also to give expert evidence.

If one of the parties briefs counsel, and this comes to the knowledge of the arbitrator, he should inform the other party (or parties) of the fact; because if one party does unexpectedly appear by counsel at the hearing, delay may be caused, because the arbitrator is almost bound to grant any application for an adjournment put in by the other party desiring an opportunity of instructing counsel also.

Examination on Oath.

The arbitrator has power, under section 7 of the Act of 1889, to examine witnesses on oath or affirmation. And if the arbitration agreement requires him to do so he must comply, unless the formality is dispensed with by the mutual agreement of the other parties. The fact that witnesses are not sworn (no objection being raised at the moment by the parties) will not provide grounds for the setting aside of the award (see Biggs *v.* Hansell (1855), 16 C.B. 562).

It must be remembered that false evidence given on oath or affirmation is perjury, and the person giving it may be prosecuted and become liable to the usual penalties of the law for perjury.

Evidence on Subpœna.

The arbitrator has power through the Court to subpœna witnesses in certain instances, to postpone the evidence of a witness, or to take the evidence of any particular witnesses at any chosen moment during the hearing as may be convenient to the parties, so long as he does not take evidence from one party in the absence of the other.

As already pointed out, the Court can now, under the Act of 1934, order the examination on oath of any witness before an officer of the Court or any other suitable person; also, it may also order the issue of a commission or request for the examination of a witness out of the jurisdiction of the Court.

The arbitrator cannot rely on his special skill and knowledge to the extent of refusing to hear evidence if the intention of the parties is that he shall hear and receive oral evidence. And he should not call a witness on his own initiative unless the parties consent to his doing so. It often assists an arbitrator to call a witness which neither party desires to call; and with few exceptions, where he does call such a witness, neither of the parties should be allowed to cross-examine that witness.

WEST YORKSHIRE SOCIETY OF ARCHITECTS.

A Continental Tour.

MR. RICHARD THOMPSON, winner of a Leeds Architectural Travelling Studentship, related his experiences to a large gathering of the Students' Union of this Society, held recently, at which Mr. J. R. Tolson presided.

An instructive tour through France, Italy, Germany and Holland had been made by the lecturer, and descriptions and illustrations of the buildings visited were given. In the student's opinion the Church of St. Maria del Salute in Venice was the most satisfying building he had seen, whilst from a material point of view the quality and texture of the brickwork in Holland had most impressed him. He went on to recount many of the difficulties regarding transport, language and currency with which he had met. A vote of thanks was accorded the speaker, on the motion of Mr. W. Warman, seconded by Mr. A. H. Antrum, the former of whom said that the incalculable benefits to be derived from such tours should urge them all to compete for these studentships. Messrs. Stephen Simpson and H. H. Castle were among those who took part in the ensuing discussion.

Mr. T. Butler Wilson said that with regard to the difficulties experienced as to language, currency and other material questions, he was appalled at the way their students were simply dumped abroad without the necessary equipment in the previous knowledge of what they might have to encounter. He thought it was high time that the Society should set up some kind of "Travel Bureau," which would collate and co-ordinate students' previous experiences, and so be in a position to advise the intending traveller.

INQUIRY BUREAU

QUESTIONS.

Local Authority's Requirement: Extra on Contract?

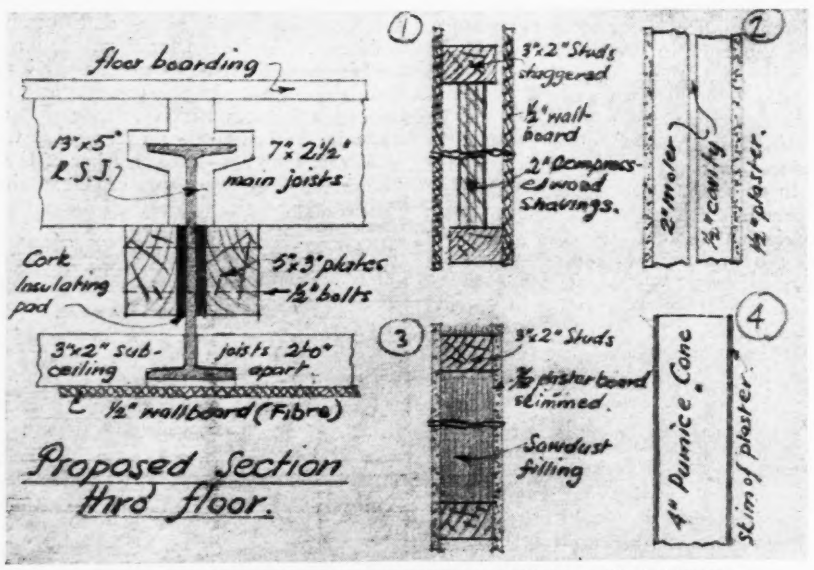
SIR,—I recently priced a job which included the fixing of lavatory basins in the top floor of a block of flats. It was not stipulated in the specification to where the wastes were to run, but there is an existing rainwater waste fixed to the premises with open heads into which the existing wastes run, both from this and other flats. I fixed three additional basins and priced for the wastes to run into this stack also, but the sanitary authorities would not allow it and made me run a stack of 2 in. L.C.C. waste from top to bottom with vent above the roof, and I consider I should be paid for this. There is a clause in the specification which reads "Extend all necessary supplies, wastes and vents as required by the Local Authorities and make good all work disturbed," and my employers maintain that this absolves them from extra payment.

My contention is that the clause applies only to the work embodied and described in the specification and is put there to ensure that the work is up to standard but does not apply to any extra work that may be required by the authority.

V. F.

Soundproofing Partition Walls.

SIR,—I am experiencing some difficulty in obtaining the necessary data required for designing and detailing soundproof partition walls. A large first-floor hospital ward is being divided up into a series of temporary private wards and it is insisted that no sound shall pass from one ward to the next. The partition walls are to be built upon an existing 6 in. hollow tile and concrete floor,



ALTERNATIVE METHODS OF SOUNDPROOF PARTITION CONSTRUCTION.

being approximately 11 ft. high and 9 ft. wide. Realising that the ceiling can convey sound from one ward to the next, it is proposed to build a suspended sub-ceiling, insulated as far as practicable from the main wood joists, as shown by sketch. I would greatly esteem your correspondents' opinions regarding the soundproofing qualities of the various types of partition construction suggested by the enclosed sketches.

You will no doubt appreciate that cost will be the deciding factor as the wards are temporary. If some of the material could be re-used when the permanent private wards are built later, this would be taken into consideration when deciding the present construction. If in your opinion one of the suggested forms of partitioning is not efficient, can you recommend any other type which will be both effective and economical?

R. E. F.

ANSWERS.

Stained Wall: Cure Wanted.

[ANSWERS TO "SAM," FEBRUARY 8.]

SIR,—Despite your correspondent's conviction that the chimney is not at fault, it is suspected that water from the exterior reaches the interior, and that condensation is not the probable cause. The damp shows as a patch on what is likely to be the warmest part of the room walls. Condensation results from water-laden air coming in contact with cold surfaces, and might therefore be expected to show first and in greatest volume on the window glass. Without examination, the true cause cannot be definitely ascertained. But at a venture, it may be that water falls down the chimney on to the flue gathering. Or the trouble may be traced to defective flashing, which permits water to penetrate and trickle down in the flue until an obstruction is met with. In short, it may be the result of one of many causes, but that it is due to condensation is very unlikely.

J. R. T.

SIR,—The description which your correspondent gives suggests that this is a soot stain, probably arising from some fault in the parging of the flue. It is desirable to cut away the actual brickwork into the flue at the position of the stain and replace with new bricks thoroughly worked in with cement, after which I have no doubt the trouble will cease to recur.

PARGE.

Copyright in House Design.

[ANSWER TO "E. J. S.," FEBRUARY 8.]

SIR,—The Copyright Act gives a very valueless protection for house design, and it is so easy to make some unimportant variation in the elevation of a building as to make it other than a copy, that it seems profitless to seek protection by law. Probably the only redress that could be got in such a case by law would be certain proof that the original plans had been used as a model and largely copied. This is always very difficult to substantiate.

PRACTICE.

Exposed Party Wall: Liability for Waterproofing.

[ANSWER TO "R. L. P.," FEBRUARY 8.]

SIR,—Your correspondent refers to the wall as a party wall, but it is not known whether this can be substantiated. I should say that if it could be shown that this is a party wall your editorial note is correct, but that if it is not so, then the onus of rendering the outside wall weatherproof would rest upon the owner of the wall.

PROPERTY.

Fire in Building: Position of Sub-Contractor.

[ANSWER TO "STILL HOPEFUL," FEBRUARY 8.]

SIR,—It would appear that your correspondent was properly engaged as a sub-contractor upon these works, and that all material and executed work deposited upon the site became the property of the building owner through the general contractor. This being the case, there is no point in the sub-contractor insuring such work unless he entered into the contract to do so. The onus of replacing such work as has been destroyed by fire rests with the party who undertook the risk in the contract. If this is the usual R.I.B.A. form, that party would be either the general contractor or the building owner, and presumably it is the latter in this case. Your correspondent states that he signed the "usual" agreement, and quotes the clause: "We make good any damage from whatsoever caused." This seems very far from the "usual" clause, and seems quite an unreasonable bargain which, it would be presumed, would not be upheld in a court of law.

INSURANCE.

Damp Concrete Path: Cure Wanted.

[ANSWER TO "UDORES," FEBRUARY 8.]

SIR,—It is probable that the defect has arisen out of an unsatisfactory aggregate in which it is likely that clay appears. If this is the case, there is no cure for this trouble other than the taking up and relaying of the concrete with clean aggregate.

AGGREGATE.

Labour Charges in Decoration.

[ANSWER TO "R. S.," FEBRUARY 1.]

SIR,—If there is a dispute about the charges of a contractor, such matters are far more easily settled by an architect, whose fee is generally repaid by the fairness of a settlement. If this matter is not of sufficient scale to justify the employment of an architect, it does not appear to be worth the annoyance of quibbling over what may be wrongly imagined to be an overcharge.

PROFESSIONAL.

WEEK IN PARLIAMENT

Government Buildings.

MR. HALL-CAINE asked the First Commissioner of Works whether any steps were to be taken by his department to ensure that the amenities of Parliament-square would be preserved in the event of the scheme maturing for building a tall block of offices on the corner of Great George-street; and whether he would arrange to take such action before plans had been made in detail and contracts entered into.

MR. ORMSBY-GORE said that the schemes for the new buildings which it was proposed to erect on land belonging to the Ecclesiastical Commissioners at the corner of Great George-street had been submitted by the promoters both to the Royal Fine Art Commission and to the London County Council as the Town Planning Authority. He had had the opportunity of examining the plans and elevations, and he could not think that the new buildings as proposed would be otherwise than an improvement on the one which it displaced.

The Silver Jubilee.

CAPTAIN PETER MACDONALD asked the First Commissioner of Works what arrangements were being made for the flood-lighting of the Palace of Westminster and Government buildings during the forthcoming Jubilee celebrations.

MR. ORMSBY-GORE said that in addition to the list of buildings which he enumerated in an earlier reply, he was happy to be able to state that arrangements had now been completed for flood-lighting the Whitehall front of the Horse Guards and the colonnade of the War Office. The Incorporated Accountants Hall and H.M.S. *President* were also to be illuminated, and it was hoped that arrangements might be made to flood-light the New Public Offices, Duchy of Lancaster Building, St. Paul's Cathedral, the Royal Hospital, Chelsea, Canada House and South Africa House. Consideration was also being given to the possibilities of flood-lighting the Victoria Tower of the Palace of Westminster, in addition to the Clock Tower. By the generosity of the electrical and gas interests the Government would be relieved of almost the whole of the expenditure involved. His department was conducting experiments in Westminster Hall with a view to ascertaining the practicability of effectively flood-lighting the oak roof.

THE BUILDING TRADE

HOUSE DRAINAGE AND SANITARY PLUMBING—VII

By J. R. TAYLOR.

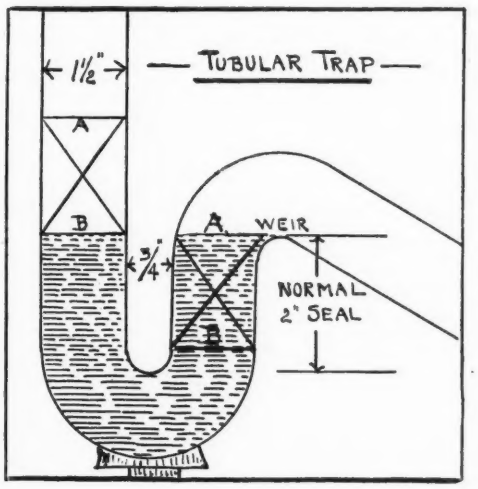
TRAP SEALS.

THE main purpose of fitting traps to drain inlets and waste pipes is to exclude foul air and drain gases, as far as is practicable, from the interior of the building served, and from so much of the more immediate surroundings as is necessary. Further objects sought are the exclusion of sewer rats, other vermin and insects. Observation goes to show that traps of large bore may discourage, but will not exclude, sewer rats. The old-fashioned running trap, used as an interceptor, offers slight discouragement to rats, if the drains on the house side are of too large a diameter and the flow in consequence is at all times very shallow. In such circumstances they have been driven out during a smoke test. On a reasonably well-designed modern system of house drainage there is no likelihood of rats either entering or emerging from the drains, except, perhaps, where the premises are left unoccupied for an abnormal length of time. It is not necessary to give a description of the many differing forms of traps that have been designed from time to time, though as we proceed we may have to mention the merits or demerits of differences of shaping intended to achieve particular purposes. The L.C.C. by-laws in respect to trapping waste pipes, mention "a suitable and efficient tubular trap or other equally suitable and efficient trap," and as regards traps on wastes, it will be to the tubular form that we shall in general be referring. The standard form of this trap is shown by the accompanying diagram.

If a trap is of good design, is in good condition and is fixed in such a manner that if undisturbed it will not spill out any portion of the water forming its full seal, what we need to know is the cause or causes of any loss of seal under working conditions, so as to avoid or counteract them. Some loss of seal may be caused by evaporation, but, save on exceptionally shallow seals, the complete unsealing of a trap from this cause is, under ordinary circumstances unlikely. There is, however, this much to be said : A ventilated trap is likely to sustain, under equal conditions, greater loss of seal as the result of evaporation than an unventilated trap. But the difference is very small and does not usually provide a sufficient reason for any material increase in the depth of trap seals. Remote as it is, however, as a cause of unsealing, it might under exceptional circumstances, as, for instance, where premises are left unoccupied, be a reason for providing a little more depth of seal. If the seal is restored by use of the fitment at not longer than monthly intervals, and is not likely to be affected by any of the other causes of loss mentioned later, an original seal of 1½ in. will usually be ample on disconnected fittings.

Momentum.

As a sole cause of dangerous loss of seal, momentum, either as the result of velocity of discharge, or in the form of waving set up by wind pressure, is, under ordinary conditions, not much to be feared. A yard gully may be unsealed by the sudden discharge into it of a bucket of water poured from a height. A water closet may lose the greater part of its seal under somewhat similar circumstances. But the remedy in either case is not to increase the depth of seal. With a very good flushing tank, water may enter a closet with such velocity as to threaten a serious loss of seal, but usually it is only a threat. All the flushing tanks the writer has tested, and they are many, give a trail discharge. The shape of the rim, the form of the flush pipe, and the shape and method of construction of the flushing tank, all unite to cause a slowing down and lessening of volume towards the end of the cleansing discharge—a trail. The amount of water constituting the full seal of a closet is, however, considerable. Assuming the full seal to have a depth of 2 in., the area of the inlet leg to average the same as that of a 5-in. pipe, and the outlet leg that of a 4-in. pipe, the amount of water forming the seal of both legs will be not far short of a quart (.232 gallon). Both legs holding up a 2-in. seal in a 1½-in. bath waste trap would, measured down to the dip, contain only .025 gallon, or one-fifth of a pint. Baths and flat-bottom sinks have such long trail discharges that, as a danger to trap seals, momentum caused by volume and velocity in the inlet leg may be ruled out when the trap is situated underneath and reasonably close up to the fitment. Self-syphonage, due to the disposition of the waste pipe beyond the trap-outlet, must be considered separately, though loss of seal may be due to a combination of causes. A circular, oval or ⊐-shaped lavatory basin has little trail, though in the majority of cases a vortex is formed a little before the end of the discharge. In most cases the outlet unions on lavatory bowls are grated, and it is seldom that the area of the openings in the gratings is equal to the area



of clearway through the tail-pieces. This tends to lessen the velocity towards the end of the discharge, which is, in any case, being diminished by loss of head as the water level in the basin lowers.

Momentum causing waving may result in some loss of seal. The occasion may be the passage of high wind over a ventilating pipe, or directly in to an open-ended waste pipe. When wind is the occasion, the movement of the water forming the seal causes some of it to spill out when the pressure is removed. These forces are usually of little magnitude, and the amount of seal lost is then small. Back pressure due to fixture discharge—that is to say, from other fitments discharging into the same branch or main waste—may be of such an order as to destroy, at least temporarily, the trap seal, but this also is a matter requiring separate consideration. Where some loss of seal is caused by waving, the loss of seal is not continuous; that is to say, if as the result of a gust of wind a portion of the seal be lost, there will be no further loss unless succeeding gusts are of greater intensity. Perhaps, for the sake of the student, we had better try to make this point a little clearer, because in so many text books the possible and probable causes of loss of seal are set out without a statement of their relative importance. The accompanying rough diagram shows a tubular trap 1½ in. diameter and 2 in. normal seal. Under a greater amount of back pressure than is at all likely to be developed in a waste pipe by reason of the passage of wind over a ventilating pipe (or into a bent waste pipe on the disconnected system), the water A-B in the outlet leg might be forced down until this portion of the leg is vacated. The consequence would be that the water level in the inlet leg would rise until the space A-B is occupied. On the pressure being removed, the water in the inlet leg would fall back again, with sufficient momentum to carry a portion over the weir. The amount that would thus spill out would depend on the rapidity of the removal of back pressure. With a sudden release, the amount of water, and therefore seal, lost, would be greater than with a slower or more gradual release. Under wind pressure, so large an initial depression in the outlet leg would not in ordinary circumstances occur; and the maximum loss of seal, except perhaps on a very badly designed system, would not exceed half an inch under gale conditions where the building served is of moderate height.

Effects of Back Pressure.

There are, however, one or two other points relative to the effects of back pressure that may be conveniently referred to here. Let it be assumed that the pressure in the outlet leg is applied very gradually, as, for instance, under an air-pressure test. With the seal at normal, the water in the outlet leg would balance that in the inlet leg, be equal in volume, and consequently in weight. Taking the normal depth of seal to be 2 in., we now apply sufficient pressure to depress the water in the outlet leg to the extent of ½ in., and consequently increase the volume and weight of that in the inlet leg by the like amount. We should then have five parts of water in the inlet leg balanced by three parts of water plus pressure in the outlet leg. In other words, the air pressure or force applied will be equal to sustaining two parts or 1 in. of water column, though the depression is only ½ in. If we now apply further pressure and obtain a further depression of ½ in., we shall have two parts of water plus pressure sustaining six parts of water in the inlet leg. Applying this to practice, and turning to the traps with 3 in. seal as required by the L.C.C. by-laws on the one-pipe system, we should have pressure capable of sustaining nearly 6 in. of water column before the seal is forced. But if we attached such a trap as close up as possible to, say, the underside of a bath, some of this advantage would be lost, for the mounting column of water would well up in the fitment and spread. At the moment, however, the more important point is that if in such cases the back pressure is great enough nearly to force the seal, and then as the result of sudden relief water escapes over the weir, the trap, until it is recharged by use, will not retain a seal capable of resisting a renewed pressure of the same magnitude. It follows that though waving due to wind pressure, and loss by evaporation, may be relatively unimportant in the case of traps on disconnected wastes, they may have serious contributory effects by reducing the seal resistance should back pressure develop on the one-pipe system.

(To be continued.)

The Geffrye Museum.

The following free lectures on furniture and allied subjects, illustrated by lantern slides, will be given at the Geffrye Museum, Kingsland-road, Shoreditch, E.2, on Thursday evenings at 7.30 :—February 21.—"Design, with special reference to the Furniture Section of the Royal Academy Exhibition of Art in Industry," by Mr. C. A. Richter. February 28.—"Metal Mounts in relation to Modern Furniture," by Mr. J. Seymour Lindsay. March 7.—"British Empire Timbers, their success in Modern Furniture and Decoration," by Mr. Walter C. Potter. March 14.—"William Morris, Machinery and Modernity," by Mr. H. P. Shapland. March 21.—"Some Great Houses recently demolished in London and the Furniture they contained," by Mr. C. A. Hindley. March 28.—"Methods of Decorating Furniture of the 17th and 18th Centuries," by Mr. Ingleson C. Goodison. No tickets are required for these lectures.

YORKSHIRE EDUCATIONAL ASSOCIATION

EXHIBITION AND CONFERENCE.

An exhibition arranged by the Yorkshire Educational Association for the Building Industry closed on Saturday, February 2, with a conference opened by Dr. R. E. Stradling, C.B., Director of Building Research. Three hundred members and others interested attended the conference and examined the exhibits, which included that of the Building Research Station recently staged at Olympia. A number of firms exhibited new and interesting materials, books, and scientific apparatus.

The Association was welcomed to Bradford by Councillor Arthur Smith, chairman of the Bradford Technical College Sub-Committee, who paid tribute to the work done by the Association and the Technical College in Bradford to foster the education of those engaged in the building industry. Mr. W. H. Forsdike, F.I.O.B., President of the Association, replied to Councillor Smith and introduced Dr. Stradling.

Dr. Stradling said that to cheapen building, present-day construction tended to cut down wall thickness, since the traditional sizes were greater than necessary for strength, but that in turn had increased the noise problem, particularly since the advent of loud speakers. The noise problem was particularly serious in the case of flat dwellers. A very short investigation of materials brought the realisation that the traditional materials were mostly local in character, and many processes were developed when labour almost meant slave labour. Social conditions had involved changes in labour, transport, and in the demand for economy. Transport had transformed local industries into national ones, and economy demanded cheapness, and the inter-action of those three factors had produced our present-day troubles. The traditional method of judging a material was to ask the practical craftsman, but the advent of new materials had completely upset that instinctive knowledge, when no experience was available. Craftsmen trained in the traditional methods found difficulty in realising the uses of the new tool. Thus, one of our first duties was to translate the traditional knowledge into scientific terms. An industry in that state of development was the happy hunting ground of the purveyor of "patent medicine." Without knowledge, we had recourse to faith. When substitute materials were placed on the market it was impossible to tell whether they were good or bad in the absence of scientific knowledge, and that threw very serious difficulties in the way of the craftsmen. In that way the plastering industry had been very greatly helped by the research stations—sometimes, for example, differences in the use of the word "clean" had made the difference between success and failure of the plasterer. Paint applied soon after plastering had also led to difficulties owing to loss of colour and blistering. Troubles in masonry and brickwork had arisen from a variety of causes, but one of the most interesting was the case where the use of Portland cement in place of lime mortar had caused crystallisation to take place in the stone or brick instead of in the mortar, with disastrous results to the masonry.

Acoustics had now become of great importance, and they were now trying to overcome the problem by the use of the scientific method. Traditional technique was not sufficient, and teachers should and must keep abreast with the latest scientific work, and be able to interpret the results to their students and to the industry in the area.

Mr. J. L. Manson, H.M.I., then spoke, and discussion followed.

The hon. secretary of the Association is Mr. J. B. M. Hay, Technical College, Bradford, from whom information regarding the activities of the Association can be obtained.

LIABILITY OF LANDOWNERS

An interesting point was raised in the recent case, Nicholson *v.* Southern Railway and Sutton and Cheam Urban District Council (*The Builder*, February 8, 1935). The Railway Company were the owners of land which abutted on and adjoined a road, at the material time unfenced. The Urban Council had made up the road, and in this operation the level of the road appears to have been raised about six inches above the land of the Railway Company. The plaintiff in the action, while walking upon the highway at night, had stepped off the kerb, and, owing to the above difference in level, had fallen on the Company's land, breaking her right leg in two places below the knee.

The plaintiff had sued both defendants, and each of the defendants denied any negligence on their part, but attributed blame to each other. The Council also alleged contributory negligence on the part of the plaintiff herself, but the Court negatived any such contributory negligence on the part of the plaintiff, and the sole question was which of the defendants was liable, or if both were liable.

The contention on behalf of the Council was that there was an obligation on the owners of land adjoining a highway to see that it did not create a nuisance, and that, therefore, as soon as the Council had raised the height of the highway so as to create a dangerous drop, it was the duty of the Railway Company either to fence their land or so to raise its level that the drop should cease to exist.

The Court expressed the opinion that this contention put a new and intolerable burden on the occupiers of land, which constituted a completely new proposition of law in the view of the Court, unsupported by any authority cited to the Court, and said that although the obligation of a landowner was not to allow his land to be used in such a way as to constitute a nuisance to the public, the above contention was something entirely different, as it was said that when something had been done not upon the adjoining land at all, but upon a highway, which made that highway highly dangerous, some obligation was put upon the landowner of the adjoining land so to alter his land to do away with the danger, and this would put an intolerable burden upon the owner or occupier of the land.

The Court cited a dictum of Mr. Justice Blackburn in a case, Cooper *v.* Walker (1862, 2, B & S. 770), where, however, the facts were different, to the effect that great injustice and hardship would often arise if, when a public right of way had been acquired under a given set of circumstances, the owner of the soil should be held bound to alter that state of circumstances to his own disadvantage and to make further concessions to the public altogether beyond the scope of his original intention, and, in the result, gave judgment for the plaintiff as against the Council for £500, with costs, and judgment for the Railway Company as against the plaintiff, with costs, these costs to be paid by the defendant Council.

As there appears lack of direct authority upon the points involved in this case, we may perhaps refer to the case Mackie *v.* Western District Committee of Dumbartonshire County Council (*Weekly Notes*, August 20, 1927; *The Builder*, September 7, 1927), which appears to have some bearing upon the question. There an elm tree, standing on private land a few feet back from a highway fell across the road and injured certain passengers in a passing vehicle, one of whom brought an action against the County Council as the road authority. The Council contended that the action should be dismissed as disclosing no case in law against them. There was, however, evidence that the Council, in widening the road about a year before the accident, had caused some of the soil supporting the tree to be removed, and had cut some of the roots of the tree, and the House of Lords held there was a case for trial, as, according to the allegation of the plaintiff, the defect in the tree was occasioned by the road-widening operations, and created a danger, obvious from the road without entering on the land of the proprietor.

A further case, Pearce *v.* London Electric Supply Co., Ltd., and Mitcham Urban District Council, has been reported in our columns (January 25). There the Electric Supply Co. had left a hole of loose soil in a footpath, and a member of the public, walking along the footpath, had sustained injuries. The question was whether the Electric Supply Co. or the Council was responsible. On behalf of the Company, it was said that the excavation had not been permanently filled in because it was understood that the Council were going to do that; the Company had, they alleged, left it safe and sent one of their men to keep an eye on the excavation in order to see if anything was required for the safety of the public, and, apparently, they intended to continue to do this until the Council had completed the work. At the time of the accident, however, nothing had been done by the Council, and the Court held that the Company remained liable until the Council stepped in to complete the work, and judgment was given for the plaintiff against the Company, with costs, with a direction that the Company must also pay the costs of the Council.

SCIENTIFIC AND INDUSTRIAL RESEARCH

STEEL STRUCTURES RESEARCH.

The Steel Structures Research Committee has issued a second report covering the two years ended March 31, 1933.

Strains in Buildings.—The investigations have been completed during the year on the uncased frame of a hotel building in London, and on the frame after the hollow tile floors had been placed and the construction completed of the stanchion casing and walls. Similar tests have also been made on the framework of an office building, and on a selected portion of the framework of a new block of residential flats. The analysis of the measurements has provided a mass of valuable information.

Riveted and Bolted Connections.—Professor Batho has continued his investigations at Birmingham University on riveted and bolted connections, and has produced a range of data of great importance to the Committee's work.

Welding of Steel Structures.—The investigations into the use of electric arc (metal arc) welding for structural steel work, which are being conducted on behalf of the Committee at the National Physical Laboratory with the collaboration of welding firms, have not proceeded as rapidly as might be desired though as rapidly as has been found possible. While the possibility of a non-destructive test of a welded joint has not been neglected, and certain investigations are in hand, attention has been concentrated on securing comparative data on the strength and reliability of welded joints made with different electrodes under existing welding technique. It is hoped to secure the co-operation of a large number of firms in the preparation of the samples required for this main series of tests. An examination is also being made at the National Physical Laboratory of the fatigue strength of certain typical joints.

City Architect Proposed, Glasgow.

Glasgow Corporation is to be asked to appoint an architect to supervise all the architectural work of the various departments. He will be concerned, in particular, with the preparation of housing schemes and the rebuilding of the older parts of the city. If approved by the Corporation, the post will be advertised at a starting salary of £1,400, rising to a maximum of £1,800. The appointment is regarded with favour in view of the projected schemes on wholesale lines for the demolition of existing areas and the reconstruction of houses on town-planning principles.

NEW BUILDINGS IN LONDON

ACTON.—Factory.—Messrs. P. Pratt & Blount, 174, High-street, W.3, are the architects for a new factory to be erected on a site adjacent to "The Elms," Uxbridge-road, for Messrs. J. K. Farnell & Co., Ltd., Alpha Works, Acton Hill, W.3. Messrs. Humphreys, Ltd., of Knightsbridge, S.W.1, are carrying out the work.

ACTON. — Extensions. — Mr. N. D. Sheffield, 18, St. Thomas-street, S.E.1, is the architect for a dining-hall extension to the Haberdashers' School in Creffield-road.

ACTON. — Building. — The B.C. are to invite tenders for the erection of a mortuary in the grounds of Acton Hospital, from plans prepared by the Borough Engineer.

BEXLEY.—Extension.—The L.C.C. has recommended £6,480 for an extension of the nurses' home at Bexley mental hospital.

BEXLEY HEATH.—Depot.—The L.P.T.B., 55, Broadway, S.W.1, have placed a contract with Messrs. J. Jarvis and Sons, Ltd., 8, Wormwood-street, E.C.2, for a trolley omnibus station and depôt. The plans have been prepared by Messrs. Wallis, Gilbert and Partners, 15, Elizabeth-street, S.W.1.

BRENTFORD.—Flats.—The Borough Surveyor to the Chiswick and Brentford T.C. is to prepare plans for flats to be erected on the site of Holly House, Brentford.

BRENTFORD.—Extension.—The Commercial Ignition Co. are having their factory in the Great West-road extended.

BRIXTON. — School. — The L.C.C. has accepted the tender of Messrs. W. H. Gaze and Sons, Ltd., 23, High-street, Kingston-on-Thames, at £22,564, for a new public elementary school on the Vassall-road site.

BUNHILL-ROW.—Additions.—The Honourable Artillery Company are to extend their headquarters by the erection of new premises on the site of St. Paul's Church. The plans have been prepared by Mr. H. Gordon Stanham, L.R.I.B.A., 26-27, Bush-lane, E.C.4. No contracts have been placed yet.

CARNABY-STREET.—Additions.—The St. James's and Pall Mall Electric Light Co., Ltd., have accepted the tender of Messrs. George Parker and Sons, Ltd., 124, Sumner-road, Peckham, S.E., for alterations and extensions to their premises. The architects are Messrs. Stanley Peach and Partners, 60, Warwick-square, S.W.1.

CHARTERHOUSE - SQUARE.—Building.—The Charter Estates, Ltd., are to build a block of business premises at Nos. 6-9. No contracts have been placed yet. The architect is Mr. Guy L. Morgan, A.R.I.B.A., 9, Gower-street, W.C.1.

CHELSEA.—Alterations.—Are to be made to the Chelsea branch post office, for H.M.O.W., by Messrs. Soole & Son, Ltd., Dunstable Works, Richmond.

CHISWICK.—Shops.—The Guildhall Property Co., Ltd., 19, Grosvenor-place, S.W.1, are having four shops, offices, and 13 flats erected in Chiswick High-road.

CHISWICK. — Alterations. — Messrs. Fuller, Smith & Turner, Ltd., brewers, Griffin Brewery, Chiswick, W.4, are having the "George IV" in the High-road altered. The building contractors are Messrs. W. H. Cooper & Son, 201, Hammersmith-road, W.6. Mr. H. Reginald Ross, L.R.I.B.A., 65, Chancery-lane, W.C.2, is the architect.

CHISWICK.—Extensions.—The B.C. has appointed a committee to report on extensions to the town hall.

CHISWICK. — Houses. — The tender of Messrs. E. S. Moss, Ltd., 60, Purley-avenue, N.W.2, has been accepted by the B.C. at £20,332 for 60 additional houses in Field-lane site of the Syon Estate.

CHISWICK. — Improvements. — The B.C. has approved plans prepared by the Borough Engineer, Mr. L. A. Cooper, for improvements to the open-air baths. The scheme is to cost £2,705.

CITY-ROAD.—Rebuilding.—Of the City of London public house, 338, City-road, E.C.1, is proposed by Messrs. Huggins and Co., Ltd., 40, Palace-street, S.W.1, at a cost of about £9,000. No contracts have been placed yet.

CLAPHAM.—Adaptation.—The L.C.C. has recommended £13,610 for the adaptation of 13, 15 and 17, Cedars-road for the P.A.C.

CLAPHAM.—Dwellings.—The tender of Messrs. W. H. Gaze and Sons, Ltd., 19-23, High-street, Kingston-on-Thames, has been accepted at £36,953, for erection of 115 dwellings on the Macaulay-road site, for the L.C.C.

EAST HAM.—Houses.—Plans have been passed by the T.C. for Mr. R. J. Slater, architect, 199, Plashet-grove, E.6, for 27 double tenement houses, 19 in Gainsborough-avenue and 8 in Landseer-avenue.

ENFIELD.—Extensions.—Are to be made to the factory of the Cosmos Lamp Works, Ltd., Brimsdown, to the plans of the company's staff. The contract has been placed with Messrs. A. J. Maxfield and Son, Station-road, Waltham Cross.

FINCHLEY.—Flats.—The Wend Estates, Ltd., 115, Park-street, W.1, have had plans prepared for a block of 24 flats at Derby Lodge, East End-lane, N.

FULHAM.—Reconstruction. — The B.C. has recommended the reconstruction of the baths and washhouses. Messrs. A. W. S. and K. M. B. Cross, 45 and 46, New Bond-street, W.1, have been appointed as architects.

GOWER-STREET.—Extensions.—Are contemplated at Warwickshire House, the residential staff hostel of Messrs. Bourne and Hollingsworth, Ltd., Oxford-street, W.1. The plans have been prepared by Messrs. Slater and Moberley, 46, Berners-street, W.1. Tenders have not yet been invited.

GROSVENOR-SQUARE.—Flats. — Tenders are about to be invited for the large block of flats at the site of Nos. 35-37, for No. 35, Grosvenor-square, Ltd., 93, Park-lane, W.1. The cost of the scheme is estimated at about £250,000. The architect is Mr. Michael Rosenauer, 1, Upper George-street, W.1. The consulting engineer is Mr. S. Bylander, 26, Old Burlington-street, W.1.

HARROW WEALD.—Houses.—The New Ideal Homesteads, Ltd., have had plans passed by the U.D.C. for 263 houses in Kenton- lane, Uppingham-avenue, Grange-avenue, Rocklands-avenue, Jersey-avenue and Queen's-avenue.

HIGHGATE.—Flats.—Plans have been prepared by Mr. Guy Morgan, A.R.I.B.A., 9, Gower-street, W.C.1, for a large block of flats at South-grove, N. The quantities are being prepared by Messrs. Ainsley, quantity surveyors, 3 and 4, Portsmouth-street, W.C.2.

KENSINGTON.—Building.—The B.C. has approved plans for a block of flats at 10 and 12, Clareville-grove, a block of flats at 40-46, Kensington Park-road, flats and garages at 78-80, Holland-park, flats in Edwardes-square and Pembroke-gardens.

LAMBETH. — Residences. — Lady Riddell has presented the £100,000 inherited under the will of her late husband to St. Thomas's Hospital to equip a new nurses' residence and preliminary training school. We understand that Sir Edwin Cooper, A.R.A., 4, Verulam-buildings, Gray's Inn, W.C.1, has been asked to prepare the plans.

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15, North Audley Street, London, W.1.

LEYTON.—Extension.—Messrs. J. Sainsbury, Ltd., 10, Stamford-street, S.E.1, are to extend their warehouse at 14 and 15, Church-lane, E.

LEYTON.—Alterations.—And additions are to be carried out at 807, High-road, Leyton for the trustees of the estate of the late Edward Hillier.

LEYTONSTONE.—Extensions.—The West Ham C.B. are inviting tenders for alterations and extensions of workshops at Whipps Cross Hospital, Leytonstone, E.11. Mr. W. Lionel Jenkins, M.A., M.Inst.C.E., Borough Engineer, has prepared the plans, and applications are to be made by February 26.

MADDOX-STREET.—Restaurant.—Messrs. J. Lyons and Co., Ltd., Cadby Hall, Kensington, W., are to build a branch restaurant. The work is to be carried out by the building department, to the plans of the company's architect, Mr. H. G. Sumner, L.R.I.B.A.

NORTH KENSINGTON.—Housing.—The Kensington B.C. are to sell to the Church Army Housing, Ltd., 55, Bryanston-street, W.1, a site in Silvester-mews and Basing-road for the erection of 24 flats. Lay-out plans have been prepared. Messrs. A. and J. Soutar, 8, King William-street, W.C.2, are the architects.

NORTHOLT. — Premises. — Tenders are being considered by the Cannon Brewery Co., Ltd., 160, St. John-street, Clerkenwell, E.C., for a new public house, the Dean Arms, at Northolt Station.

POPLAR.—Rebuilding.—The L.C.C. has approved preliminary plans for a three-story school providing accommodation for 368 infants and 440 juniors. The building is to take the form of the rebuilding of Glengall-road school, and is to cost £31,105.

POPLAR. — Reconstruction.—The L.C.C. has recommended £33,000 for the reconstruction of the Millwall lock bridge and of the diversion of West Ferry-road.

POTTERS BAR.—Offices.—The U.D.C. has accepted the estimate of Messrs. S. Worboys & Sons, of Potters Bar, for a new council chamber and alterations to the house at the Nursery, Darkes-lane. The plans are by Mr. E. Carr, surveyor.

PUTNEY.—Restaurant.—The Zeeta Co., Ltd., High-street, Kensington, W.8, have under consideration the erection of large restaurant and shop premises in the High-street and Upper Richmond-road, S.W.15, costing about £60,000. Plans have been prepared by Mr. Bernard George, A.R.I.B.A., staff architect to Messrs. John Barker and Co., Ltd., Kensington, W.8. Tenders have not yet been invited.

SHEPHERD'S BUSH.—Block.—The L.C.C. has recommended the erection of an additional ward block at the Hammersmith Hospital, Ducane-road, W.12. The new building will consist of 103 beds, and will be four stories high, and cost £42,069.

ST. JOHN'S WOOD.—Residence.—Plans have been prepared by Messrs. A. and D. Ospalak, 13, Old Queen-street, S.W.1, for a large house at Langford-place, N.W.

ST. JOHN'S WOOD.—Flats.—Plans have been prepared by Messrs. E. A. Stone and Partners, 20, Berkeley-street, W.1, for a block of high-class flats in Abbey-road, N.W. No contracts have been placed yet.

ST. PANCRAS.—Flats.—Are being erected at Osnaburgh-terrace, W.C.1, by Sir Lindsay Parkinson and Co., Ltd., 171, Shaftesbury-avenue, W.C.2. The Trussed Concrete Steel Co., Thames House, Millbank, S.W.1, are the reinforced concrete engineers for the building, which is entirely of reinforced concrete.

SHOREDITCH. — Rebuilding. — Of the "Bancroft Arms" public-house, Mile End-road, E.1, is proposed by Messrs. Truman, Hanbury, Buxton and Co., Ltd., Brick-lane, Spitalfields, E. The contract has been placed with Messrs. H. and J. Taylor, Hither Green-lane, S.E.13. The architect is Mr. W. G. Ingram, F.R.I.B.A., 4, Verulam-buildings, Grays-inn, W.C.1.

SLOANE-SQUARE. — Rebuilding. — The Chelsea B.C. has approved an application sub-

mitted by Messrs. Slater & Moberley, architects, 46, Berners-street, W.1, for further rebuilding of the premises of Messrs. Peter Jones, Ltd. The site involved is at the corner of Sloane-square, Symons-street and King's-road, and is being demolished by Messrs. Coles Demolition and Excavation, Ltd., Worton-road, Isleworth.

SOUTHGATE. — DEPOT. — The United Dairies, Ltd., 35, Palace-court, W.2, are to build a new depot at Reservoir-road. The plans have been prepared by the company's architect, Mr. F. T. Dear, A.R.I.B.A.

SOUTHWARK. — HOUSING. — The L.C.C. has recommended £85,000 for the acquisition, clearance and redevelopment for housing purposes of the site in Walworth-road.

STRATFORD.—SCHOOL.—The West Ham E.C. are inviting tenders for the erection of a new trade school to be erected in Water-lane, E.15. Mr. John H. Jaques, F.R.I.B.A., architect to the Committee, 61, West Ham-lane, Stratford, E.15, has prepared the plans.

SURBITON. — STORES. — Messrs. F. W. Woolworth and Co., Ltd., New Bond-street, W.1, are to build departmental stores, offices and showrooms in Victoria-road. The work will be carried out by the company's construction department, to the plans of the architect, Mr. C. B. Donaldson.

SURBITON.—HOUSES.—Tenders are invited for the construction of 82 houses of non-parlour type on the Lower Marsh housing site by the U.D.C. Mr. Henry T. Mather, engineer and surveyor, has prepared the plans.

TOTTENHAM.—ALTERATIONS.—And Additions are to be made to the branch premises at 220, High-road, for Messrs. Barclays Bank, Ltd., 54, Lombard-street, E.C.3. The contractors are Messrs. Mattock Bros., 35, Winkfield-road, Tottenham, N. The architects are Messrs. C. E. Blackbourn and Partners, 26a, Finsbury-square, E.C.2.

WALHAM GREEN.—RECONSTRUCTION.—A scheme of reconstruction, which will cost about £225,000 will start shortly on a site owned by Messrs. Timothy Davies, Ltd. The entire site is at 3-13, The Broadway, 1-26 Effie-road, Argon Mews, and Effie-mews. The buyers are to construct a new ground-floor store for Messrs. Timothy Davies and about 150 flats above. Mr. C. Beresford Marshall, 4, Cavendish-place, W.1, is the architect.

WANDSWORTH.—FLATS AND SHOPS.—The B.C. propose the erection of 42 flats and eight shops (in three blocks) at Greyhound-square, Streatham, S.W. Plans are by Mr. Harold Baily, 73, Queen Victoria-street, E.C.4, from whom particulars may be obtained on deposit of £2 2s. Tenders are now invited, returnable by March 6.

WARDOUR - STREET.—PREMISES.—Plans have been prepared for new offices, etc., on the site of No. 181. Arrangements are in the hands of Messrs. Robins, Gore and Mercer, 205, Wardour-street, W.1.

WEMBLEY. — EXTENSIONS. — Are to be made to the premises at the Exhibition Grounds, of Messrs. Collars, Ltd. Plans have been prepared by the company. The contractors are Messrs. Bovis, Ltd., 35, High-street, W.1.

WESTMINSTER.—HALL.—The St. John's Church Council have decided to erect a new hall and institute in Medway-street, S.W.1. The builders are Messrs. C. S. Foster and Sons, Smarts-lane, Loughton. The architects are Messrs. Caroe and Passmore, 3, Great College-street, S.W.1.

WHITEHALL.—EXTENSIONS.—And rebuilding are contemplated at New Scotland Yard, S.W.1, by the Commissioner of Police, as part of a £4,000,000 development scheme. The new headquarters extensions will occupy a site on the Victoria-embankment and cost about £400,000. The Police Architect is Mr. G. Mackenzie Trench, F.R.I.B.A.

WIMBLEDON.—FLATS.—Contracts are to be placed soon for a block of flats at Lake-road, S.W.18. The plans have been prepared by Mr. Guy L. Morgan, A.R.I.B.A., 9, Gower-street, W.C.1.

WOOD GREEN.—PREMISES.—New premises are to be erected on land adjoining Nightingale-gardens for the local branch of the British Legion.

EAST KENT BUILDERS

CELEBRATION DINNER

A DINNER of the East Kent Associations of Building Trades Employers was held at Canterbury, on Saturday, January 26, to celebrate the achievement of "flat" rates of wages for building trade operatives in East Kent. Mr. G. Browning, J.P., F.I.O.B., of Canterbury, presided. The Associations represented were: Canterbury, Thanet, Ashford, Folkestone and Deal.

Mr. H. Hinkins (President of the Southern Counties Federation of Building Trades Employers) proposed "The East Kent Associations," and congratulated them on forming such a group of Associations. He thought they had done the right thing in arranging a flat rate of wages and he hoped they would give it a fair trial. The time might come when someone would say the operatives were "getting something out of it," but he thought it would act like a pendulum—first to one side, and then to the other. East Kent had given a real lead to the rest of the Southern counties, and their progress would be watched with interest. There were different opinions as to the value and advisability of the grouping system, but properly organised and handled it should be a great help to the whole industry. He looked forward to the time when there should be one large organisation working in such a way as to serve not only those engaged in the industry, but also the public as well. Everyone engaged in the trade, from the most distinguished architect to the roughest labourer, would have his share in it.

Mr. Browning, responding, referred to the death of Alderman Larkin, of Ramsgate, a member of the Association, and the company stood in silence, The speaker went on to say that that evening marked a new era in the life of the East Kent Association, which had a history going back 20 years. For a long time they remained independent of the National Federation and even negotiated a fortnight's strike in East Kent during that period. Kent men had held together and shown the road to improvement. An excellent spirit of co-operation and friendship existed between them and the whole of East Kent, and should the areas be grouped as suggested they would do their very best to see it was a success.

Mr. W. E. Collier, late National President, proposing the toast of "Architects and Surveyors," congratulated the Associations on their evidence of life and strength, of courage and unity. He also congratulated the Royal Institute of British Architects on attaining its Centenary. Building trade employers, he continued, were on excellent terms with the operatives, who had an organisation of which they might be proud, but, like the employers, they were not fully organised. That was a source of embarrassment both to them and to the employers. "I am quite sure," he continued, "that we shall be wise to do everything we can to encourage organisation, not only in our own ranks, but also in the ranks of the operatives, so that when we meet and confer, and reach agreement on any point concerning the industry, we can feel assured it is going to be made applicable to both employers and operatives."

The speaker also expressed pleasure at the fact that they had been able to form joint boards of builders and architects, covering the whole region. Those aimed at encouraging a larger use of the ability of architects in design, and at discouraging builders from undertaking architects' duties. Builders would like architects to limit invitations to tender to federated builders. A far greater proportion of the building trade was now concerned with housing than was the case in earlier days, and the Federation wished to make a membership drive among that class of builder. They intended to set up, by means of a board composed of architects and builders, a standard that was woefully absent from present day house-building. A standard specification would be set, and those who built to it would be entitled to a certificate. That would be of value in offering the house for sale.

Mr. H. Anderson (chairman of the Canterbury Chapter of the South Eastern Society of Architects), replying, said the architects were anxious for a closer association with the builders. As regards limiting invitations to tender, however, it was not possible at present owing to the somewhat unorganised state of the builders. Out of 357 builders in Kent 107 were federated, and a great many of the remainder should, by reason of their standing and experience, be within the Federation. When they could claim that the great bulk of reputable builders in Kent, Surrey and Sussex were members of the Federation, then the South-Eastern Society of Architects would be prepared to confine invitations to tender as far as possible to federated builders.

Mr. G. M. Willis (Junior Vice-President of the Southern Counties Federation), giving "Our Guests," said public bodies should be careful about employing direct labour in carrying out what was, after all, the direct business of the builder.

The Mayor of Canterbury (Councillor Frank Wood), replying, said he was against direct labour, but they had to satisfy the ratepayers.

Mr. W. J. Brooker (chairman, Southern Counties Regional Joint Committee) also responded, and Mr. Holmes proposed the toast of the chairman.

Mr. Browning replied.

STANDARD SPECIFICATIONS

5 in. and 6 in. Mortice Locks.

IN 1932, the British Standards Institution issued a B.S. specification for 5 in. and 6 in. steel-cased mortice locks, B.S.S. No. 455. This first step towards co-ordinating dimensions of these types of locks was made possible by the co-operation of the Midland Lock and Latch Manufacturers' Association, upon whose recommendations the specification was based. Thus users now have the means, when ordering locks, of securing interchangeability and replacing locks without having to readjust the spindle and keyholes in the door. Another useful feature of this standardisation lies in the fact that the manufacturer of stock doors can mortice and prepare the doors for locks before they are assembled, thereby saving a considerable amount of time and labour. It is to be hoped that as time goes on purchasers will co-operate when ordering locks of this type by specifying that they should be in accordance with the B.S. Specification No. 455.

Asbestos Cement Flue Pipes.

Interesting evidence of the development of asbestos cement building materials is seen from the issue by the British Standards Institution of a new B.S. specification dealing with the dimensions and workmanship of asbestos cement spigot and socket flue pipes and fittings for gas-fired appliances. This specification also includes a range of standard forms of flue fittings used in connection with flue systems. An interesting feature of the specification is the standard form of socket which secures interchangeability and enables replacements to be made without necessitating adjustment of existing flues. We understand that two other specifications for asbestos cement pipes for soil and rainwater purposes will be ready shortly, and that with the completion of this work there will be available to architects, builders, gas engineers, borough engineers and surveyors a series of five British Standard Specifications for asbestos cement goods covering, in addition to the above, roofing materials and pressure pipes for drainage and water services. A British Standard Specification for the latter has already been issued under reference B.S.S. No. 486-1933.

Copies of these Specifications, Nos. 455-1932 and 567-1934, and of the previously issued specification for Asbestos Cement Pressure Pipes, No. 486-1933, may be obtained from the Publications Department, British Standards Institution, 28, Victoria-street, S.W.1, price 2s. 2d. each, post free.

RATES OF WAGES IN THE BUILDING TRADE

AS AND FROM 1st FEBRUARY, 1935.

[Every endeavour is made to ensure accuracy, but we cannot be responsible for errors.]

	Craftsmen.	Labourers.
Aberdare	1/5	1/0½
Abergavenny	1/5	1/0¾
Abingdon	1/4	1/0
Accrington	1/5½	1/1¼
Aldeburgh	1/1½	10¼
Aldershot	1/2½	11
Alfreton	1/5½	1/1¼
Alnwick	1/4½	1/0½
Altrincham	1/5½	1/1¼
Amble	1/4½	1/0½
Amersham	1/3½	11¾
Ammanford	1/5½	1/1¼
Andover	1/2½	11
Arundel	1/3	11¼
Ascot	1/3½	11¼
Ashby-de-la-Zouch	1/4	1/-
Ashford (Kent)	1/2½	11
Ashford (Middx.)	1/4½	1/0½
Ashington	1/4½	1/0½
Ashtead	1/4	1/-
Ashton-under-Lyne	1/5½	1/1¼
Aylesbury	1/3	11¼
Aylsham	1/2½	11
Bagshot	1/2½	11
Banbury	1/3	11¼
Barnsley	1/5½	1/1¼
Barnstaple	1/3½	11¾
Barrow-in-Furness	1/5½	1/1¼
Barry	1/5½	1/1¼
Basingstoke	1/3	11¼
Bath	1/4½	1/0½
Batley	1/5½	1/1¼
Beaconsfield	1/3½	11¾
Beccles	1/2	10½
Bedford	1/4½	1/0½
Berkhamsted	1/3	11¼
Berwick	1/4½	1/0½
Beverley	1/5½	1/1¼
Bexhill-on-Sea	1/3½	11¾
Bideford	1/3½	11¾
Biggleswade	1/3	11¼
Billericay	1/3	11¼
Birchington	1/3	11¼
Birkenhead	1/7*	1/2½
Birmingham	1/5½	1/1¼
Bishop Auckland	1/5	1/0¼
Bishops Stortford	1/4	1/0
Blackburn	1/5½	1/1¼
Blackpool	1/5½	1/1¼
Blyth	1/5½	1/1¼
Bognor Regis	1/3	11¼
Bolton	1/5½	1/1¼
Bournemouth	1/4½	1/0½
Bracknell	1/3	11¼
Bradford	1/5½	1/1¼
Bradford-on-Avon	1/2½*	11
Braintree	1/3½	11¾
Brentwood	1/5	1/0¼
Bridgwater	1/3½	11¾
Bridlington	1/5	1/0¼
Brighouse	1/5½	1/1¼
Brighton	1/4½	1/0½
Bristol	1/5½	1/1¼
Broadstairs	1/3	11¼
Bromsgrove	1/4½	1/0½
Bromyard	1/2	10½
Buckley	1/5½	1/1¼
Bungay	1/1½	10¼
Burnham-on-Crouch	1/2	10½
Burnley	1/5½	1/1¼
Burslem	1/5½	1/1¼
Burton-on-Trent	1/5½	1/1¼
Bury	1/5½	1/1¼
Bury St. Edmunds	1/3	11¼
Buxton	1/5	1/0¼
Byfleet	1/3½	11¾
Cambridge	1/5	1/0¼
Canterbury	1/3	11¼
Cardiff	1/5½	1/1¼
Carlisle	1/5½	1/1¼
Carnforth	1/5½	1/1¼
Castleford	1/5½	1/1¼
Caterham	1/4	1/-
Chard	1/2½*	11
Chatham	1/4	1/-
Chelmsford	1/4	1/-
Cheltenham	1/4	1/-
Chepstow	1/4½	1/0½
Chertsey	1/4	1/-
Chester	1/5½	1/1¼
Chesterfield	1/5½	1/1¼
Chichester	1/3	11¼
Chorley	1/5½	1/1¼
Cirencester	1/3*	11¼
Clacton	1/3½	11¾
Cleveleys	1/5½	1/1¼
Clitheroe	1/5½	1/1¼
Cobham	1/4	1/-
Colchester	1/4½	1/0½
Colwyn Bay	1/4½	1/0½
Congleton	1/5	1/0¾
Coventry	1/5½	1/1¼
Cranbrook	1/2	10½
Cranleigh	1/2½	11
Crawley	1/3	11¼
Crewe	1/4½	1/0½
Cromer	1/2½	11
Crowborough	1/3	11¼
Cuckfield	1/3	11¼
Darlington	1/5½	1/1¼
Darwen	1/5½	1/1¼
Daventry	1/4	1/-
Deal	1/3	11¼
Denbigh	1/4	1/-
Derby	1/5½	1/1¼
Devizes	1/2*	10½
Dewsbury	1/5½	1/1¼
Didcot	1/3½	11¾
Diss	1/2	10½
Doncaster	1/5½	1/1¼
Dorchester	1/3*	11¼
Dorking	1/3½	11¾
Dover	1/3	11¼
Dovercourt	1/3½	11¾
Driffield	1/4	1/-
Droitwich	1/4½	1/0½
Dudley	1/5½	1/1¼
Dunstable	1/3½	11¾
Durham City	1/5½	1/1¼
Eastbourne	1/4½	1/0½
E.Glam.(Mon.Val.)	1/5	1/0¼
East Grinstead	1/3½	11¾
Edenbridge	1/3	11¼
Ely	1/2	10½
Epping	1/4½	1/0½
Exeter	1/4½†	1/0½
Exmouth	1/3½	11¾
Fakenham	1/2	10½
Falmouth	1/4	1/-
Fareham	1/3	11¼
Faversham	1/2½	11
Felixstowe	1/4	1/-
Filey	1/4	1/-
Fleetwood	1/5½	1/1¼
Flint	1/5	1/0¾
Folkestone	1/3	11¼
Frinton-on-Sea	1/3½	11¾
Frome	1/2½*	11
Gainsborough	1/4½	1/0½
Gateshead	1/5½	1/1¼
Gillingham	1/4	1/0
Glossop	1/5	1/1¼
Gloucester	1/4½†	1/0½
Godalming	1/3½	11¾
Goole	1/4½	1/0½
Gosport	1/4½	1/0½
Grantham	1/4	1/-
Gravesend	1/5	1/0¾
Gt. Yarmouth	1/3½	11¾
Grimsby	1/5½	1/1¼
Guildford	1/3½	11¾
Guilsborough	1/4	1/-
Halifax	1/5½	1/1¼
Hanley	1/5½	1/1¼
Harpenden	1/4	1/-
Harrogate	1/5½	1/1¼
Hartlepools	1/5½	1/1¼
Harwich	1/3½	11¾
Haslemere	1/2½	11
Hastings	1/3	11¼
Hatfield	1/4½	1/0½
Haywards Heath	1/3	11¼
Hednesford	1/5	1/0¼
Hemel Hempstead	1/4½	1/0½
Henley	1/3½	11¾
Hereford	1/3½*	11¾
Herne Bay	1/3	11¼
Hertford	1/4½	1/0½
Heysham	1/5½	1/1¼
Hitchin	1/4	1/-
Hoddesdon	1/4½	1/0½
Holt	1/1½	10¼
Horley	1/3	11¼
Horsham	1/3	11¼
Horwich	1/5½	1/1¼
Huddersfield	1/5½	1/1¼
Hull	1/5½	1/1¼
Hunstanton	1/2	10½
Huntingdon	1/2½	11
Ilfracombe	1/3½	11¾
Ingatestone	1/3	11¼
Ipswich	1/4½	1/0½
Isle of Thanet	1/3	11¼
Isle of Wight	1/2½	11
Keighley	1/5½	1/1¼
Kenilworth	1/5½	1/1¼
Kettering	1/5	1/0¾
Kidderminster	1/4½	1/0½
King's Lynn	1/3	11¼
Kirkham	1/5½	1/1¼
Knowle	1/5	1/0¾
Lancaster	1/5½	1/1¼
Leamington	1/5	1/0¾
Leatherhead	1/4½	1/0½
Leeds	1/5½	1/1¼
Leicester	1/5½	1/1¼
Leighton Buzzard	1/2½	11
Letchworth	1/4	1/-
Lewes	1/2	10½
Lichfield	1/4½	1/0½
Lincoln	1/5½	1/1¼
Littlehampton	1/3	11¼
Liverpool	1/7‡	1/2½
Llandudno	1/4½	1/0½
Llanelly	1/5½	1/1¼
London—		
12 m. radius	1/7*	1/2¼
12-15 m. radius	1/6½*	1/2
Long Eaton	1/5½	1/1¼
Longton	1/5½	1/1¼
Loughborough	1/5½	1/1¼
Louth	1/4	1/-
Lowestoft	1/3½	11¾
Luton	1/5	1/0¾
Macclesfield	1/4	1/0¾
Maidenhead	1/4	1/-
Maidstone	1/4	1/-
Malvern	1/4	1/-
Manchester	1/5½	1/1¼
Manningtree	1/2	10½
Mansfield	1/5½	1/1¼
March	1/2½	11
Margate	1/4½	1/0½
Market Harborough	1/4	1/-
Matlock	1/1½	10¼
Melton Constable	1/4½	1/0½
Melton Mowbray	1/5	1/0¾
Merthyr Tydfil	1/5½†	1/1¼
Middlesbrough	1/4	1/-
Middleton	1/5½	1/1¼
Middlewich	1/4½	1/0½
Milford Haven	1/3½	11¾
Morecambe	1/5½	1/1¼
Morley	1/5½	1/1¼
Mundesley	1/2½	11
Nantwich	1/4½	1/0½
Newark-on-Trent	1/4½	1/0½
Newbury	1/3	11¼
Newcastle-on-Tyne	1/5½	1/1¼
Newcastle-u.-Lyme	1/5½	1/1¼
New Forest	1/2½	11
Newmarket	1/3½	11¾
Newport, Mon.	1/5½	1/1¼
Newport Pagnell	1/2½	11
Northampton	1/5½	1/1¼
Norwich	1/5	1/0¾
Nottingham	1/5½	1/1¼
Nuneaton	1/5½	1/1¼
Oakham	1/4	1/-
Oldham	1/5½	1/1¼
Ormskirk	1/5½	1/1¼
Oxford	1/5	1/0¾
Oxted	1/2½	11
Paignton	1/5	1/0¾
Peterborough	1/5	1/0¾
Plymouth	1/5½†	1/1¼
Pontypridd	1/5	1/0¾
Portsmouth	1/4½	1/0½
Port Talbot	1/5½	1/1¼
Preston	1/5½	1/1¼
Pulborough	1/2	10½
Ramsgate	1/3	11¼
Reading	1/4½	1/0½
Redcar	1/5½	1/1¼
Redditch	1/4½	1/0½
Redhill	1/3½	11¾
Reigate	1/3½	11¾
Retford	1/4	1/-
Ripon	1/4	1/-
Rochdale	1/5½	1/1¼
Rochester	1/4	1/0
Rugby	1/5½	1/1¼
Saffron Walden	1/2	10½
St. Albans	1/5	1/0¾
St. Helens	1/5½	1/1¼
St. Neots	1/2½	11
Salisbury City	1/2½*	11
Salisbury Plain	1/2½*	11
Sawbridgeworth	1/3½	11¾
Saxmundham	1/1½	10¼
Scarborough	1/5	1/0¾
Selby	1/5½	1/1¼
Sevenoaks	1/4	1/-
Sheerness	1/3	11¼
Sheffield	1/5½	1/1¼
Shipley	1/5½	1/1¼
Shoeburyness	1/5	1/0¾
Shoreham	1/4	1/-
Shrewsbury	1/4½	1/0½
Sittingbourne	1/2½	11
Skegness	1/4½	1/0½
Sleaford	1/4	1/-
Slough	1/4½	1/0½
Southampton	1/4½	1/0½
Southend on Sea	1/5	1/0¾
Southport	1/5½	1/1¼
South Shields	1/5½	1/1¼
Spalding	1/3	11¼
Stafford	1/5	1/0¾
Staines	1/4½	1/0½
Stamford	1/4	1/-
Stevenage	1/4	1/-
Stockport	1/5½	1/1¼
Stockton-on-Tees	1/5½	1/1¼
Stoke-on-Trent	1/5½	1/1¼
Stourbridge	1/5	1/0¾
Stourport	1/4½	1/0½
Stowmarket	1/2	10½
Stratford-on-Avon	1/4	1/-
Stroud	1/4†	1/-
Sunderland	1/5½	1/1¼
Sutton Coldfield	1/5½	1/1¼
Swaffham	1/1½	10¼
Swanage	1/3½*	11¾
Swansea	1/5½	1/1¼
Swindon	1/4*	1/-
Tamworth	1/5	1/0¾
Taunton	1/3½	11¾
Tenterden	1/2½	11
Tewkesbury	1/4*	1/-
Thetford	1/2	10½
Thorpe Bay	1/5	1/0¾
Todmorden	1/5½	1/1¼
Tonbridge	1/4	1/0
Torquay	1/5	1/0¾
Totnes	1/3½†	11¾
Trowbridge	1/2½*	11
Truro	1/2½	11
Tunbridge Wells	1/4	1/-
Uppingham	1/4	1/-
Uttoxeter	1/4	1/-
Wakefield	1/5½	1/1¼
Walsall	1/5½	1/1¼
Walsden	1/5½	1/1¼
Walton-on-Naze	1/3½	11¾
Ware	1/4½	1/0½
Warminster	1/2½*	11
Warrington	1/5½	1/1¼
Warwick	1/5	1/0¾
Wellingborough	1/5	1/0¾
Wells (Norfolk)	1/1½	10¼
Welwyn	1/4½	1/0½
Welwyn Gar.City	1/5½	1/1¼
West Bromwich	1/5½	1/1¼
Westcliff-on-Sea	1/5	1/0¾
Weston-super-Mare	1/4½	1/0½
Weybridge	1/4	1/-
Weymouth	1/3*	11¼
Whitby	1/4½	1/0½
Whitstable	1/3	11¼
Widnes	1/5½	1/1¼
Wigan	1/5½	1/1¼
Wigton	1/4	1/-
Wellington	1/5	1/0¾
Wilmslow	1/5½	1/1¼
Winchester	1/3½	11¾
Windermere	1/4	1/-
Windsor	1/4½	1/0½
Wisbech	1/2½	11
Witham	1/3½	11¾
Woking	1/3½	11¾
Wokingham	1/3½	11¾
Wolverhampton	1/5½	1/1¼
Woodbridge	1/2½	11
Worcester	1/4½	1/0½
Workington	1/4	1/-
Worksop	1/4½	1/0¼
Worthing	1/3	11¼
Wrexham	1/5	1/0¾
Wroxham	1/3	11¼
Wycombe	1/4	1/-
Wymondham	1/2	10½
Yeovil	1/3½*	11¾
York	1/5½	1/1¼

* Painters, 1d. less than other Craftsmen. † Painters, ½d. less than other Craftsmen. ‡ Plasterers, 1s. 8d.

For Building Trade Wages in Scotland, see page 343.

CONTRACTS OPEN

For some contracts still open, but not included in this list, see previous issues. Those with an asterisk are advertised in this number. Certain conditions beyond those given in the following information are imposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any tender, that a fair wages clause shall be observed, that no allowance will be made for tenders; and that deposits are returned on receipt of a bona-fide tender, unless stated to the contrary.

The date given is the latest date when the tender, or the names of those willing to submit tenders, may be sent in, the name and address at the end is the person from whom or place where quantities, forms of tender, etc., may be obtained.

Following is a list of abbreviations:—Borough Surveyor, B.S.; Borough Engineer, B.E.; District Surveyor, D.S.; Town Clerk, T.C.; County Engineer, C.E.; County Surveyor, C.S.; Surveyor, S.; Engineer, E.

BUILDING, PAINTING, ELECTRIC LIGHTING, HEATING, etc.

FEBRUARY 15.

***Leeds.**—Erection.—Of 1,774 houses and flats on various estates, for T.C. T.C., Room 57. Dep. £10.

FEBRUARY 18.

Birkenhead.—Extension.—To fliter house at Alwen Waterworks, near Cerrig-y-druidion, for T.C. R. F. Baker, Water Engineer, 601, Borough-rd. Dep. £2 2s.

Birmingham.—Additions, etc.—At city isolation hospital, Yardley Green-rd., Small Heath, for T.C. F. H. C. Wiltshire, T.C. Dep. £2 2s.

Blackpool.—Ambulance Station.—At Albert-rd., for T.C. B.S. Dep. £2.

Burton-on-Trent.—Erection of senior elementary schools on a site in Clarence-st., for C.B. Director of Education. Dep. £2 2s.

Bury.—Tiling.—Of 2nd class plunge bath and promenade at Baths, St. Mary's-pl., for T.C. B.E. Dep. 10s.

Cheadle and Gatley.—Electricity Showroom.—In Station-rd., Cheadle Hulme, for U.D.C. Electrical Engineer and Manager, 37, High-st., Cheadle. Dep. £1 1s.

Chester.—Erection.—New primary school, Heygarth-rd., Eastham, for C.C. F. Anstead Browne, F.R.I.B.A. Dep. £2 2s.

Chichester.—Houses.—6, at Singleton, for R.D.C. Leonard Bailey, clerk. Dep. £1 1s.

Coventry.—School.—At Hen-lane, for T.C. Director of Education. Dep. £1 1s.

Egham.—Dwellings.—3, at Alexander-rd., including fencing, drains, and other works, for U.D.C. E. and S., High-st. Dep. £2 2s.

Glasgow.—Alterations.—And additions to Stobhill hospital, for T.C. Master of Works Dept., City-chams. (Room 81). Dep. £2 2s.

Glasgow.—Alterations.—At Chill Rooms, for T.C. D. Stenhouse, T.C. Dep. £2 2s.

Kendal.—Alterations.—At public library, for T.C. F. W. Oxberry, B.E. and S.

Lancing.—Erection.—Of public convenience and reinforced concrete shelter at "The Dip," Brighton-rd., also convenience at recreation ground, Boundstone-lane, Sompting, for Parish Council. Clerk. Dep. £2 2s.

Leicester.—Erection.—Of further portion of new buildings at Wyggeston grammar school for boys, for T.C. F. P. Armitage, Education Dept. Dep. £2 2s.

Leslie.—Alterations.—On existing shops in various trades (Contract No. 2), for District Co-operative Society, Ltd. Williamson & Hubbard, architects, Kirkcaldy. Dep. £1 1s.

Liskeard.—Houses.—14, at Park View, for T.C. H. R. Venning, L.R.I.B.A., architect and surveyor, Midland Bank-chams.

Middlesex.—Enlargement.—Of Cranborne Council school, Potters Bar, for C.C. County Architect, 10, Great George-st., London, S.W.1. Dep. £2 2s.

Paignton.—Erection.—Of tea house, public convenience, boat house and chair store in Goodrington Park, for U.D.C. E. and S., 23, Totnes-rd. Dep. £3 3s.

Peterborough.—Heating.—Low-pressure hot water heating installation to Fulbridge Council school at Keeton-rd., for T.C. S. Dodson & Son, chartered and registered architects, Museum-bldgs., Priest-gate. Dep. £2 2s.

Poole.—Shelter.—Convenience and pumphouse at Canford Cliffs Chine, for T.C. B.E. Dep. £1 1s.

Portree.—Alterations.—At post office, for H.M.O.W. Architect, H.M. Office of Works, 122, George-st., Edinburgh. Dep. £1 1s.

Sleaford.—Houses.—72, at Lincoln-rd., for U.D.C. S. F. Clare, S. Dep. £2 2s.

***Southampton.**—Erection.—Of second portion (completion) of school on Merry Oak estate, for C.B. B.E. Dep. £2 2s.

Tipton.—Materials.—For building approximately 44 houses, for U.D.C. C. R. Gallie, A.R.I.B.A., Housing Director.

Tottenham.—Erection.—Of 94 houses and 4 flats on Weir Hall estate, for B.C. Capt. H. F. Wilkinson, B.E. Dep. £2.

Urmston.—Houses.—25, and 2 bungalows, in Sevenoaks-av., Davyhulme, and Higher-rd. and Ciss-lane, for U.D.C. E. L. Leeming, S. Dep. £2.

Wakefield.—Hall.—And schools in Thornes-rd., Lupset, in various trades. H. A. Hosking, Haddon Leys, Manygates Park, Wakefield. Dep. £1 1s.

FEBRUARY 19.

Athlone.—Post Office.—For Commissioners of Public Works. T. Cassedy, secretary, Office of Public Works, Dublin. Dep. £1.

Birkenhead.—Conversion.—Of existing stable and roofing over of yard area to form motor garage at Central Depot, Cleveland-st., for C.B. B. Robinson, B.E. and S.

Cheshunt.—Convenience.—And ambulance station, for U.D.C. J. E. Sharpe, E. and S.

Derbyshire.—Installation.—Electrical installations at (1) Belper children's home; (2) Chesterfield children's home, and (3) Hayfield children's home, for C.C. County Architect, Derby. Dep. £2 2s.

Dewsbury.—Internal Painting.—Of covered market building, for T.C. B.S.

Edinburgh.—Offices.—For Education Department at St. Giles-st., for T.C. E. J. MacRae, F.R.I.B.A., City Architect

Glasgow.—Installation.—Of electric lighting at extension of Hawkhead mental hospital, for T.C. Master of Works Department. Dep. £2 2s.

Portsmouth.—Sub-stations.—2, at South Hayling, for T.C. Engineer and Manager, Electricity Dept., 111, High-st.

Sligo.—Cottages.—20, for County Board of Health and Public Assistance. N. O'Dwyer, consulting engineer to the Board, Veritas House, Lower Abbey-st., Dublin. Dep. £2 2s.

Southampton.—Dwellings.—26, in blocks, on Houndwell clearance area, for C.B. B.E. Dep. £3 3s.

Swaffham.—Houses.—50, also construction of streets in reinforced concrete, and construction of 3 in. water main, at Back-lane housing site, for U.D.C. R. D. Smith, Clerk. Dep. £1 1s.

Swansea.—Painting Work.—At College University. Edwin Drew, Registrar, Singleton-park.

Ware.—Houses.—28, at Fanhams-rd., for U.D.C. R. W. Grantham, E. and S., The Priory. Dep. £2 2s.

Warrington.—Installation.—Of heating system at Alkin-st. hospital, for C.B. J. Y. Hughes, B.E. and S. Dep. £2 2s.

West Riding.—Painting.—External painting at County Poor Law institution, Todmorden, and internal painting, etc., at County Poor Law institution, Otley, for C.C. O. Platts, A.R.I.B.A., West Riding Architect, County Hall, Wakefield.

FEBRUARY 20.

Bangor.—Houses.—For water bailiff at Bethesda, for T.C. B. Price Davies, L.R.I.B.A. Dep. £2 2s.

***Basingstoke.**—Erection.—Of two pairs houses at North Waltham, for R.D.C. Wallis Smith, F.R.I.B.A., 8, Cross-st.

Birkenhead.—Fencing.—Supplying and erecting wrought-iron fencing and gates at Alpha-drive central school, for C.B. B. Robinson, B.E. and S.

Bristol.—Plumbers' Work.—Connected with erection of secondary school, at Downton-rd., Bedminster, for E.C. W. H. Watkins, 1, Clare-st. Dep. £2 2s.

Bristol.—Plumber's Work.—Connected with erection of school and nursery centre at Ilminster-av., Knowle., for E.C. C. H. White, architect, College Green. Dep. £2 2s.

Bristol.—School.—Builder's and plumber's work connected with Council school at Fonthill-rd., Southmead, for T.C. C. H. White, architect, 47, College Green, Bristol, 1. Dep. £2 2s.

Deptford.—Erection.—Of entrance gates and piers, etc., at new cemetery site, Marvels-lane, Grove Park, S.E.12, for B.C. B.E. and S., New Cross, S.E.14. Dep. £1 1s.

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Dungannon.—Repair.—And renovation of Churchhill public elementary school and teachers's residence, Caledon, for Regional E.C. John Beatty, secretary, Education Office, Dungannon, Co. Tyrone. Dep. £2 2s.

Kildare.—Married Officers' Quarters.—At Curragh Camp, for Commissioners of Public Works. T. Cassedy, secretary, Office of Public Works, Dublin. Dep. £1.

***London.**—Erection.—Of 62 working-class flats at Ferdinand-pl., Chalk Farm, for St. Pancras B.C. T.C. Dep. £2 2s.

Plymouth.—Alterations.—To sanitary conveniences at High-st. school, Laira Green school, Hyde Park-rd. school, Treville-st. school, for T.C. City Architect, Rowe-st.

Wallasey.—Minor Additions.—To new Brighton bathing pool, for T.C. B.E. Dep. £2 2s.

Watford.—Garage.—On site at outfall works, Tanner's Wood, Abbot's Langley, for R.D.C. S., 25, King-st., Watford. Dep. £1.

FEBRUARY 21.

Blackpool.—Painting.—Of St. John's Market, for T.C. B.S.

Fareham.—Pavilion.—At Sarisbury Green, and alterations to Council offices, Westbury Manor, for U.D.C. H. T. Privett, S.

Gainsborough.—Conversion.—Of Chesleigh Home, North Marsh-rd., into maternity home. Philip W. Birkett, A.R.I.B.A., County Architect, County Offices, Lincoln. Dep. £2 2s.

Huntingdon.—Extensions.—To Kimbolton grammar school, for C.C. Thos. H. Longstaff, County Architect. Dep. £2 2s.

Keighley.—Rearrangement.—Of casual wards at County Poor Law Institution, for West Riding P.A.C. P. O. Platts, West Riding Architect, County Hall, Wakefield.

Prestonpans.—Mining Dept.—At Preston Lodge school, for Aberdeen C.C. County Architect, Property and Works Dept., County-bldgs., Haddington.

Rochdale.—Chalet.—Small timber sleeping chalet at Marland hospital, for C.B. B.S.

FEBRUARY 22.

Buxton.—Alterations.—And reconstruction at rear of large Concert Hall in Pavilion-gardens, for T.C. F. Langley, L.R.I.B.A., Borough Engineer and Architect. Dep. £2 2s.

Dewsbury.—Conversions.—Of 6 privies to water closets at properties in Sackville-st., Ravensthorpe, for C.B. Chief Sanitary Inspector.

Felixstowe.—Extensions.—To public sanitary conveniences at Model Yacht Pavilion, for U.D.C. S.

Hull.—School.—For 920 pupils on Endike-lane West, for T.C. D. Harvey, A.R.I.B.A., City Architect. Dep. £1 1s.

Manchester.—Erection.—Of washing and fuelling shed at Hyde-rd. depot, for T.C. Transport Dept., 55, Piccadilly, Manchester. Dep. £1 1s.

Morden.—Erection.—Of pavilion and refreshment room at Cannon Hill Common, for U.D.C. G. Jerram, E. and S., Kingston-rd., S.W.19. Dep. £1.

Pontesbury.—Erection.—Of 4 cottages and 4 sets of farm buildings. County Land Agent, 5, Belmont, Shrewsbury. Dep. £1.

Stockton-on-Tees.—Wash-house.—And tool shed, Newham Grange-park, for T.C. B.E.

***West Ham.**—Erection.—Of trade school in Water-lane, Stratford, for C.B. J. H. Jacques, F.R.I.B.A., 61, West Ham-lane, E.15. Dep. £2.

FEBRUARY 23.

Battle.—Alterations.—And additions to Council Office, The Watch Oak, for R.D.C. S. Bumstead, Clerk, 11, Wellington-sq., Hastings.

Bexley.—Extension.—To electricity sub-station, rear of electricity showrooms, Broadway, for U.D.C. G. A. Joy, S. Dep. £2 2s.

Bristol.—Flats.—14, at Oxford-st., The Dings, for T.C. H. M. Webb, City E. and S., 51, Prince-st. Dep. £1.

Cardiganshire.—Extension.—To "The Tregaron Casual Wards," for C.C. J. Lewis-Evans, F.I.A.A., County Architect, 21, Great Darkgate-st., Aberystwyth. Dep. £3 3s.

Ebbw Vale.—Cottages.—28, in blocks of fours, at Glyncoed, for U.D.C. P. I. Davies, E. and S. Dep. £5 5s.

Gloucester.—Supply.—And erection of outside iron fire-escape stairs at Wotton hospital, for City Mental Hospital. Clerk of Works, Wotton Mental Hospital.

Penge.—Wiring.—Of 28 parlour type and 22 non-parlour type houses on housing estate, Anerley, S.E.20, for U.D.C. Col. H. W. Longdin, S., Town Hall, Anerley, S.E.20. Dep. £2 2s.

Ripley.—Houses.—12 three-bedroomed and 2 four-bedroomed, at housing estate, Parkside, Heage, for U.D.C. G. W. Bird, C.E. Dep. £1 10s.

Solihull.—Houses.—6, at Heath-rd., Elmdon Heath, for U.D.C. W. T. Orton, Architect, Civic House, Great Charles-st., Birmingham. Dep. £1 1s.

FEBRUARY 25.

Alnwick.—Houses.—80, and/or construction of roads and sewers in connection with S. Thomas's Close housing scheme, for U.D.C. G. Beaty, S. Dep. £2 2s.

Chipping Sodbury.—Erection.—Of 4 parlour and 8 non-parlour type houses on Colts Green housing site, Old Sodbury, for R.D.C. H. C. James, Housing Supervisor. Dep. £1.

Dorset.—Supply.—And erection of suspended concrete floors for new buildings at grammar school, Weymouth, for C.C. B. C. Roe, Dorchester. Dep. £2 2s.

Dover.—Pavilion.—At Maison Dieu bowling green, for T.C. W. Boulton Smith, B.E. and S. Dep. 10s.

Downham.—Houses.—Downham West, 2 pairs; Saint Germans, 4 pairs; Southery, 4 pairs; Stoke Ferry, 2 pairs; Stow Bardolph, 6 pairs, for R.D.C. S. C. Rigg, Building S., Downham Market. Dep. £1 1s.

Ealing.— Erection. — Selborne school, East Greenford, for T.C. F. J. Forty, B.E. Dep. £3 3s.
Llangollen.—Houses.—24, at Tir Dwn site, Queen-st., for U.D.C. E. Foulkes-Jones, clerk. Dep. £1 1s.
***London.**—Erection.—Garage, mess rooms, caretaker's residence, etc., and other works at Milespit Hill and Dole-st., Mill Hill, Hendon, for Paddington B.C. T.C. Dep. £1 1s.
Newcastle-upon-Tyne.—Alterations.—To Bentinck, Blenheim-st. and St. Peter's Council schools, for E.C. Thos. Walling, Director of Education, Education Office, Northumberland-rd.
Purfleet.—Housing.—72 houses, for U.D.C. C. S. H. Hawkes, Acting E. and S. Dep. £2 2s.
Rochester.—Repainting.—Of bridge, and for various ancillary works, for Wardens. C. L. Howard Humphreys, Bridge Engineer, 17, Victoria-st., Westminster, S.W.1.
St. Anthony-in-Roseland.—Residence.—A. J. Cornelius, F.R.I.B.A., architect, Truro.
Sheffield.—Houses.—446 non-parlour type on Arbourthorne estate, building scheme No. 4, for T.C. W. Geo. Davies, F.R.I.B.A., City architect. Dep. £2

FEBRUARY 26.

***Beeston.**—Erection.—Of 6 bunaglows and 28 houses on Boundary-rd., for U.D.C. E. A. Bush, S. Dep. £2 2s.
***Darlington.**—Erection.—Of 62 houses in Geneva-rd. East, for C.B. B.S. Dep. £1 1s.
***Darlington.**—Erection.—Of 20 houses in Shelley-rd. (Hundens-lane), for C.B. B.S. Dep. £1 1s.
***Darlington.**—Erection.—Of 18 houses in Thompson-st. West, for C.B. B.S. Dep. £1 1s.
Manchester.—Shed.—Washing and fuelling shed at Hyde-rd. depot, for T.C. City Architect. Dep. £1 1s.
Manchester.—Shelter.—Concrete shelter at Princess Parkway, Wythenshawe estate, for T.C. City Architect. Dep. £1 1s.
Margate.—Houses.—37 non-parlour type and 150 yds. of roadway, on St. Peter's footpath site, for T.C. E. A. Borg, B.S., 40, Grosvenor-pl.
Sunderland.—Houses.—130 three-roomed houses and 358 four-roomed houses, Ford estate extension, for C.B. B.E. Dep. £5 5s.
West Ham. — Alterations. — And additions of workshops, Whipps Cross hospital, E.11, for C.B. W. L. Jenkins, B.E. Dep. £1.

FEBRUARY 27.

Chorley.—Houses.—62, on land off Duke-st., for T.C. B.S. Dep. £2 2s.
Coventry.—Houses.—100, at Canley, and 10, at Harnall Lane East and The Chantries, for T.C. E. H. Ford, City E. and S. Dep. £3 3s.
Gravesend.—Repairs.—Structural repairs and external redecorations of 1 and 2, King's Cottages, Windmill-hill, for T.C. Borough Architect, 5, Woodville-terr.
Gravesend.—Conveniences.—At Woodlands-park, for T.C. Borough Architect, 5, Woodville-terr.
Hythe.—Reconstruction.—And improvement of 5-stall gent.'s convenience at Town Hall, for T.C. B.S. Dep. £1 1s.
Stockton-on-Tees. — Erection. — Of Newham Grange Senior School, for T.C. Geo. P. Stainsby, A.R.I.B.A., 25, High-st. Dep. £2 2s.
Tipperary.—Remodelling.—Of National schools at St. Michael's-st. Presbytery, St. Michael's-st., Tipperary.
Wolverton.—Houses.—4 non-parlour type on Bradwell-rd. (East) housing estate, for U.D.C. A. Baker, S. Dep. £1 1s.

FEBRUARY 28.

Chester.—Ordinary Works.—And repairs to public buildings, for H.M.O.W. Room 65D, Third Floor, H.M. Office of Works, London, S.W.1. Dep. 5s. each
Ebbw Vale.—School.—Senior mixed school with accommodation for 360 scholars, Beaufort Fields-rd., Clyncoed, for U.D.C. Geo. H. Davies, L.R.I.B.A., chartered architect, 12, Cross-st., Abergavenny. Dep. £5.
***Newbiggin-by-the-Sea.**—Erection.—Of 62 houses and 8 bungalows, for U.D.C. James Kailofer, S. Dep. £2 2s.

MARCH 1.

***Carlisle.**—Erection.—Of residences for Deputy Medical superintendent and 2 houses for officers, for Joint Mental Hospital, Garlands. H. E. Ayris, architect, 68, Lowther-st. Dep. 10s. 6d.
***Litherland.**—Erection.—Of 66 houses on site between Sefton-rd. and Moss-lane, for U.D.C. Geo. Ponsford, E. and S. Dep. £2 2s.

MARCH 2.

***Norwich.**—Erection.—40 houses at Elm Grove-lane, for T.C. Engineer. Dep. £2.
***Staffordshire.**—Extension.—To Leek C. school, situate off Buxton-rd., for C.C. F. A. Hughes. Dep. £4 4s.

MARCH 4.

***Leek.**—Erection.—Of 156 houses, for U.D.C. W. E. Beacham, S. Dep. £3 3s.
***Moseley (Birmingham).**—Enlargement.—Of sorting office, Branch Post Office, for H.M.O.W. Room 55D, Third Floor, H.M. Office of Works, London, S.W.1. Dep. £1.
***West Ham.**—Remodelling.—Of heating, hot and cold water services and other works at Whipps Cross hospital, E.11, for C.B. W. L. Jenkins, B.E. Dep. £10.

MARCH 5.

***Cinderford.**—Erection.—Of new telephone exchange and sorting office and alterations to post office, for H.M.O.W. Room 65D, Third Floor, H.M. Office of Works, London, S.W.1. Dep. £1.

MARCH 6.

***Brighton.**—Construction.—Of 10 grass and 11 hard tennis courts and other works at proposed county tennis ground (Marshall Playing Field), Withdean, for C.B. T.C. Dep. £2 2s.
***Derbyshire.**—Erection.—Of New Mills employment exchange, for H.M.O.W. Room 65D, Third Floor, H.M. Office of Works, London, S.W.1. Dep. £1.
***Hadham.**—Erection.—Of 4 cottages at Barley Croft End, Furneux Pelham, for R.D.C. R. H. Fell, clerk, 2, Hockerhill-st., Bishops Stortford. Dep. £2 2s.
***Luton.**—Erection.—Of 60 houses in various districts, for R.D.C. H. Pickering, S. Dep. £2 2s.
***Wandsworth.**—Erection.—Of 42 flats and 8 shops in Greyhound-sq., Streatham, for B.C. Harold Bailey, architect, 3, Queen Victoria-st., London, E.C.4. Dep. £2 2s.

MARCH 12.

***Croydon.**—Alterations.—And extensions to receiving block at Mayday Hospital, for C.B. T.C. Dep. £5 5s.

MARCH 25.

***Manchester.**—Erection.—1,102 houses, for T.C. Housing Director. Dep. £2 2s.

NO DATE.

Bude.—Congregational Church.—F. W. Anderson, architect, Astwell Hall, Warren-rd., Torquay.
Panteg.—Houses.—30 at Griffithstown, 10 at New Inn, and 10 at Pontymoel, for U.D.C. T. P. Holmes Watkins, clerk, Hanbury-rd., Pontypool.

MATERIALS, etc.

FEBRUARY 18.

Birmingham.—Paint.—Approximately 35 tons of industrial paint, for T.C. A. W. Smith, General Manager and Secretary, Gas Department, Council House, Birmingham,
Caterham.—Road Stones.—For U.D.C. E.
Cowes (I. of W.).—Road Material.—For U.D.C. John W. Webster, E. and S.
Cowes.—Broken Granite.—For U.D.C. John W.
Crayford.—Highway Materials.—For U.D.C. D. M. Mactavish, E. and S.
Webster, E. and S.
Esher.—Portland Cement.—For U.D.C. Frederick Edwards, clerk.
Gosforth.—Broken Whinstone.—For U.D.C. C. Wyld, E. and S.
Doncaster.—Highway Materials.—For C.B. B.S., 2, Priory-pl.
Manchester.—Supplying.—Bricks for 12 months, for T.C. T.C.
Nottinghamshire.—Road Materials.—For C.C. J. Cracroft Haller, C.S., Shire Hall, Nottingham.

FEBRUARY 19.

Dewsbury.—Road Materials.—For C.B. E. Shaw, B.E.

FEBRUARY 20.

Cornwall.—Highway Materials.—For C.C. C.S., County Hall, Truro.
London.—Highway Materials.—For Greenwich B.C. B.E.

STUBBS
MARBLE
IS
BETTER
MARBLE

Rotherham.—Road Materials.—For R.D.C. A. E. Lant, E. and S., Council Offices, Grove-rd.
Sevenoaks.—Road Materials.—For U.D.C. Geo T. Bradbury, clerk.

FEBRUARY 22.

Ramsbottom.—Highway Materials.—For U.D.C. A. Plunkett, E. and S.

FEBRUARY 23.

East Barnet.—Broken Granite.—For U.D.C. C. M. Barnes, E. and S.
Harrogate.—Limestone.—For T.C. C. E. Rivers, B.E. and S.
Northumberland. — Road Materials.—For C.C. C.S., County Hall, Newcastle-on-Tyne, 1.

ENGINEERING, IRON AND STEEL

FEBRUARY 18.

Deudraeth. — Sewerage. — At Penrhydeudraeth, for R.D.C. S. L. Richards, E., 5, Dumfries-pl., Cardiff. Dep. £2 2s

FEBRUARY 25.

Catthorpe.—Bridge.—Carrying diversion of Watling-st., south of Catthorpe cross roads, over River Avon, for Warwickshire C.C. D. H. Brown, C.S., Warwick. Dep. £2.
Kingston-upon-Hull. — Steelwork. — Structural steelwork, patent glazing, etc., to be used in erection of roof for covering approx. 3,200 sq. yds. over Central Coach Station, for T.C. Herbert Hamer, City E. Dep. £2.
Leeds.—Supply.—Of 500 tons of structural steelwork to be used in extension of generating station at Kirkstall, for T.C. G. Nelson Hefford, General Manager and City Electrical Engineer, 1, Whitehall-rd., Leeds. Dep. £2 2s.

ROAD, SEWERAGE AND WATER WORKS.

FEBRUARY 18.

Hornchurch.—Reconstruction.—Of part of Ardleigh Green-rd., for U.D.C. F. Alderson, S.
Southend-on-Sea.—Construction.—Of carriageway and footpath, together with surface water sewers and incidental works in connection thereto, for T.C. Robert H. Dyer, B.E. Dep. £2 2s.

FEBRUARY 20.

Barnet.—Street Works.—In district, for U.D.C. S.
Hawarden.—Sewerage Works.—At East Saltney, for R.D.C. G. I. Reidford, E. Dep. £2 2s.
Lewisham.—Paving.—And forming the roadway and footways of Baring-rd. (part of), Lee, for T.C. S.
Norwich.—Supply.—Delivery and erection of structural steelwork for new admission hospital, for T.C. City E.

FEBRUARY 20.

Newport (Mon.).—Roads.—New roads on Maindee Park estate, for C.B. B.E. Dep. £5.
Newport (Mon.).—Paving.—Paving and metalling of Maesglas-cres. (part), for C.B. B.E. Dep. £5.

FEBRUARY 21.

Plympton St. Mary.—Tubes.—Excavation works, filling, providing and laying complete about 876 yds. of 24-in. dia. concrete tubes, manholes, etc., for R.D.C. P. T. Loosemore, clerk. Dep. £2 2s.

MARCH 11.

***Leeds.**—Formation.—Pitching, etc., of roads on various estates, for T.C. T.C., Room 57. Dep. £2.

Public Appointments.

FEBRUARY 18.

Aldershot.—Clerk of Works.—For T.C. T.C.
Bangor.—Clerk of Works (Temp.).—For T.C. T.C., 123, High-st.
Cheshire.—Architectural Assistant (Temp.).—For C.C. F. Anstead Browne, F.R.I.B.A., Chester.
Chester.—Clerk of Works.—For C.C. F. Anstead Browne, F.R.I.B.A., Chester.
Chiswick.—Clerk of Works.—For B.C. B.E. and S.
Finsbury.—General Assistant.—For B.C. T.C., Rosebery-av., E.C.1.
Nottingham. — Clerk of Works. — For River Trent Catchment Board. John Hirst, clerk, Nottingham.

FEBRUARY 19.

Derby.—Assistant Quantity Surveyor.—For C.B. C. H. Aslin, F.R.I.B.A.

FEBRUARY 22.

***Merton.**—Architectural Assistant (Temporary). —For U.D.C. E. and S., Merton, S.W.19.
Northallerton. — Town Planning Draughtsman (Temp.).—For North Riding of Yorkshire C.C. Clerk, Northallerton.

FEBRUARY 23.

Fulham.—Architectural Assistant.—For B.C. T.C. T.C.
Fulham.—Engineering Assistant.—For B.C. T.C. T.C.
***Somerset.**—Assistant Quantity Surveyor (Temporary).—For C.C. A. J. Toomer, Taunton.
***Sutton.**—Architectural Assistant (Temporary).—For B.C. T.C.

FEBRUARY 25.

Cambridge.—Two Architectural Assistants (Temporary).—For C.C. Ashley Takrum, clerk, Cambridge.

FEBRUARY 28.

***Wolverhampton.**—Superintendent of Educational Buildings.—For E.C. T. A. Warren.

MARCH 2.

***Denbighshire**—Three Architectural Assistants (Temporary).—For C.C. Clerk, Ruthin.
***Denbighshire.**—Travelling Building Clerk of Works.—For C.C. Clerk, Ruthin.

MAY 30.

***London.**—Assistant Examiners in Patent Office. Secretary, Civil Service Commission, Burlington Gardens, W.1.

CURRENT & PROPOSED BUILDING WORK*

Abbreviations: T.C. for Town Council; U.D.C. for Urban District Council; R.D.C. for Rural District Council; E.C. for Education Committee; B.C. for Borough Council; P.C. for Parish Council; M.H. for Ministry of Health; M.T. for Ministry of Transport; C.B. for County Borough; B. of E. for Board of Education; M.W.B. for Metropolitan Water Board; B.S. for Borough Surveyor; B.E. for Borough Engineer; D.S. for District Surveyor; C. for Clerk; T.C. for Town Clerk; C.E. for County Engineer; C.S. for County Surveyor; S. for Surveyor; E. for Engineer.

Abergavenny.—B.S. to prepare plans for houses in Chapel-rd.

Aswarby.—Lindsey C.C. to reconstruct bridge at £1,100.

Batley.—Gift of £5,000 has enabled Governors of grammar school to proceed with new hall of assembly, and to convert existing hall into a library.

Billingham-on-Tees.—U.D.C. approved 120 houses. Architects, Kitching & Co., 21, Albert-rd., Middlesbrough.

Birmingham.—Catholic Authorities propose school for 288 junior scholars in civic centre, Kingstanding. Plans by G. B. Cox, F.R.I.B.A., 109, Colmore-row, Birmingham.

Blackpool.—C.B. resolved that B.S. be instructed to prepare plans and estimates for new market on Brighton-grove site.—B.S. to carry out external painting of hangars and clubhouse.—Council resolved that amended lay-out plan from A. & G. R. Fletcher in connection with Rosemede estate be approved.—Council also resolved upon branch library, reading-room and medical clinic in Hawes Side-lane.

Blaenau Festiniog.—Executive Committee of the Urdd Gobaith Cymru has decided to build pavilion at Festiniog to hold 12,000 people.

Blyth.—Plans prepared by L. Leeper, B.E., for alterations to Plessey-rd. junior school to cost £2,000.

Bolsover.—Derbyshire Standing Joint Committee propose police station. Plans by G. H. Widdows, County Offices, Derby.

Bradford.—Corporation Housing Committee recommending 600 dwellings on Canterbury-av. estate Plans by City Architect.—City of Bradford Co operative Society, Sundridge-rd., propose additions to central premises. Plans by W. A. Johnson, F.R.I.B.A., Chief Architect, Co-operative Wholesale Society, Ltd., Balloon-st., Manchester. Contracts not let.

Brandon.—U.D.C. to erect 288 houses. J. P. Addison, S.

Calverley.—Cansfield & Sons, Fagley, to build 184 houses on Calverley Moor Farm estate.

Cannock.—U.D.C. to apply to M.T. for sanction to £4,740 for reconstruction of Ridings Brook bridge, Walsall-rd.

Canterbury.—City Council approved:—Estate lay-out, Littlebourne-rd., W. F. Broad.

Carlisle.—Board of Management of Cumberland infirmary proposing extensions to institution at £17,000. S. W. B. Jack, architect, Warwick-rd. Tenders not yet invited.

Carlton (Notts).—Rev. J. Toomey, P.P., Church of Sacred Heart, Main-st., proposes elementary schools.

Cheltenham.—T.C. approved:—G. A. M. Hall, lay-out and 20 semi-detached houses, new road off Leckhampton-rd.; R. Shenton, factory, rear of 30-36, Bath-rd.; Lawes Cherry & Co., Ltd., 22 semi-detached houses, Gloucester-rd.; Cheltenham Original Brewery Co., Ltd., rebuilding of bottling department, High-st.

Chippenham.—T.C. decided that tenders be invited for 96 houses at £31,500.

Coalville.—69 houses to be demolished under U.D.C.'s slum-clearance scheme.

Colchester.—Public library proposed in Culver-st. at £25,000.

Cookley.—Clarke & Stillito, estate agents, Coventry, proposes 100 to 200 houses off Castle-rd.

Corby.—Properties, Ltd., to develop 60 acres for housing purposes

Desborough.—Plans been submitted to District Council for corset factory at Rothwell-rd. for Co-operative Wholesale Society. Plans prepared in Architects' Dept., Co-operative Wholesale Society, Ltd., 99, Leman-st., London, E.1. L. G. Ekins, F.R.I.B.A., chief architect.

Dewsbury.—Moor Working Men's Club are to erect new club premises.

Dorchester.—B. A. Westlake, of "Antelope" hotel, proposes new residential hotel, "West Country" hotel, on Bridport-rd.

Dorset.—E.C. acquiring sites for junior schools at Gillingham and Wareham, and for a senior school at Bridport.

Dudley.—T.C. approved:—Fredk. Smith, Ltd., Aston Model Brewery, Lichfield-rd., Aston, rebuild "The Angel" inn, corner of Castle-st. and Fisher-st.; Dudley Masonic Hall, Ltd., "The Laurels," Wellington-rd., new Masonic Temple buildings, Wellington-rd.

East Kesteven.—R.D.C. proposes small houses for aged people.

Frecheville.—Tennant Bros. to erect licensed premises in Sheffield-rd.

Gillingham.—M.H. approved centralised municipal offices costing £85,000.

Gloucestershire.—E.C. approved extension of Lydney grammar school and Dursley technical institute.

Guildford.—T.C. approved:—Extension of All Saints' Church, Onslow Village.

Harrow.—U.D.C. approved:—D. C. Houses (Canons), Ltd., 40 houses, Howberry-close, Cloysterwood and Longcroft-rd., Stanmore; J. C. Rackham, 13 shops, Brockhurst-corner, Uxbridge-rd., Harrow Weald; L. F. Richardson, 36 flats, The Gate House and South Lodge estates, Stanmore; G. H. Nicholls, 20 houses, Kenton-lane, Kenton; F. A. Yates, 24 flats, Bacon-lane, Stanmore.

Havant and Waterloo.—U.D.C. to erect 50 houses at Emsworth.

Horsforth.—U.D.C. approved:—24 houses, Sussex-av., B. Newton & Sons.

Immingham.—Lindsey C.C. to erect central senior school at £18,435.

Isle of Ely.—E.C. to acquire sites for schools at Chatteris, Outwell and Thorney.

Lancaster.—R.D.C. approved plans for public hall, Main-st., Wharton, for Parochial Church Council.—T.C. approved plans for masseuse, etc., at Royal Lancaster infirmary, Ashton-rd. Austen & Paley, architects, 24, Castle-hill.

Lancashire.—E.C. propose branch library in Fleetwood-rd. and Victoria-rd., Thornton.—E.C. propose dining accommodation at Leven Valley Council school, Haverthwaite. Plans by County Architect, Stephen Wilkinson, F.R.I.B.A., County Offices, Preston. Cost £1,225. Tenders to be invited.—E.C. propose extensions of Foundation School, Hawkshead, at £2,175. Contracts not yet placed.—E.C. proposing branch library, Manchester-rd., Droylsden, at £7,000. Plans by Stephen Wilkinson, F.R.I.B.A., County Architect, Preston.—E.C. propose adaptation of Weldbank Mill, Chorley, for junior instruction centre at £3,592.—C.C. propose improvements on Belmont-rd. between Bolton and Preston with bridge over railway at Hoghton level crossing, at £39,772. Plans by P. Schofield, C.S., Preston

Leeds.—Corporation to erect public shelter at Middleton-park. Plans by the City E.—Plans ready and tenders are to be shortly invited for elementary school on Gipton housing estate.—H. Lane Fox, architect, 25, Bond-st., preparing plans for reconstruction of "New Inn," Gildersome, for S. Smith Old Brewery (Tadcaster), Ltd., The Old Brewery, Tadcaster.

Leeds.—R. A. H. Levett, Director of Housing, prepared plans for extension of Westfield estate by 242 houses and flats, and on Hawkesworth estate by 284 houses and flats. Tenders to be invited.

Leicester.—Additions to be carried out at County Council Offices.—County E.C. approved alterations and additions at Coalville Bridge-rd. school, Hugglescote primary school, Birstall junior school, Ibstock modern school, and Melton Mowbray modern boys' school.—T.C. have agreed to Health Committee's recommendation for erection of 116 houses for slum clearance, to cost £37,000, and to the erection of sports pavilion at Aylestone recreation ground at cost of £2,000.—E.C. propose extensions to College of Art and Technology. Plans by Pick, Everard, Keay & Gimson, F.R.I.B.A., architects, 6, Millstone-lane. Cost £68,750.—E.C. propose extensions to domestic science training college at Knighton Fields. Cost £39,970. Plans by J. O. Thompson, A.R.I.B.A., S., Education Dept., Newark-st.—Erection of modern abattoir on multi-floor principle at £150,000. A. Herbert, 18, Friar-lane, to prepare quantities for City Council.

Leicestershire.—E.C. propose alterations to Wigston Magna Long-st. Council school for modern school; boys' school for 450 at South Wigston, £18,000; alterations to girls' school, £5,000; new school at South Charnwood, primary school at Hugglescote, £10,500; mixed modern school at Ashby-de-la-Zouch, £18,000; primary school at Griffydam, £6,000; modern school for Barwell and Earlshilton, £17,000; primary school for Coalpit-lane. County Architect, Capt. E. G. Fowler, F.R.I.B.A., County Education Offices, Greyfriars.

Lindsey.—E.C. proposes improvements and alterations at the following schools:—Hibaldstow (£914), Market Rasen (£556), Ashby infants' (£177), Ashby boys' (£1,180).

Liverpool.—T.C. to apply to M.H. to borrow £1,900 for purchase of 76 and 78, North Hill-st. for purpose of building public elementary school.—Board of Management of David Lewis Northern hospital, Great Howard-st., proposing extensions to out-patients' department, etc. Plans by Campbell & Honeybourne, Bluecoat-chams., School-lane. Contracts not let.—Alfred Gilbertson, L.R.I.B.A., 35, Tithebarn-st., preparing plans for school for St. James, Marsh-lane, Bootle, for Rev. Monsignor J. O'Brien, D.C.O., Chestnut-grove, Marsh-lane, Bootle. Cost £16,000 to £17,000. Tenders to be invited.—Plans passed by T.C.:—New admission and observation block, Royal Liverpool babies' hospital, Church-rd., Woolton, W. P. Horsburgh, architect; addition to premises, 79, Naylor-st., R. L. Taylor, for R. R. Stockfis, Ltd.; factory, Binns-rd., Gilbert Fraser, for Paton, Calvert & Co., Ltd.; 19 houses, The Fairway, and 19 houses, The Greenway, Brown & Sanders, for Capstick & Owen, Ltd.; 26 houses, Broadgreen-rd., for Heald & Stan; parish hall, Church of St. Mary, Westminster-rd., F. Rimmington, for the Vicar and Wardens; addition to factory, Douro-place, Gilbert Fraser, for Paton, Calvert & Co., Ltd.; 6 houses, Green-lane, and 10 houses, Snaefell-av., W. T. Clarke, for H. Carr; 8 houses, Greenhill-rd., and 12 houses, Marion-gr., Brown & Sanders, for Mather Avenue Estates, Ltd.; alteration of premises, 79-81, London-rd., Montague Burton, Ltd., Architect's Dept.; and 28 houses, new road off Snaefell-av., W. T. Clarke, for H. Carr.

London (Kensington).—B.C. to make alterations to Pembroke-rd. depot at £200.—Rev. W. L. Weston, P.P. of St. Matthew, Club Moor, acquired site, Richard Kelley-drive, Club Moor, for senior school for 500 scholars. Plans by F. E. G. Badger, L.R.I.B.A., Cunard-bldgs. Cost £12,000. Tenders to be invited.

London (Wandsworth).—B.C. approved:—W. T. Mills & Co., shops and flats at 408-10, Streatham High-rd.; Toms & Partners, 6 lock-up shops with flats over, junction of Streatham High-rd. and Leigham-av.; Wilson, Lovatt & Sons, Ltd., blocks of flats at L.C.C. Clapham Park estate; J. Laing & Son, Ltd., 13 blocks of flats with garages, Manor Fields, junction of Putney Hill and Portsmouth-rd.; A. E. Green, alterations and additions at St. Gregory's Men's Club, Garratt-lane.

Ludlow.—T.C. proposes joint isolation hospital.

Macclesfield.—W. Brough & Sons, builders, St. Andrew's-rd., prepared lay-out for development of land in Chester-rd. area for 52 houses.—Wellings & Sons, Stonefield-rd., propose 30 houses off Blakelow-rd.

Maidstone.—Elementary Education Sub-Committee recommends acquisition of site at Faversham for proposed central school.

Manchester.—Plans approved by T.C.:—Additions to chapel, to St. Bede's R.C. college, Mayfield-rd. and Alexandra-rd., Whalley Range, Governors: library to Victoria University, Wright-st. and Limegrove, Chorlton-on-Medlock. Senate of University: church, Burnage-lane, Burnage, Trustees of Church of Christ; out-patients' dept. to eye hospital and nurses' home, Nelson-st., Chorlton-on-Medlock, T. Worthington & Sons, architects, 178, Oxford-rd.: club and institute, Grey Mare-lane, Bradford, Manchester Labour Club and Institute; 10 houses, East-rd. and Barnard-rd., Gorton; 30 houses, Wembley-rd., Gorton; 14 houses and 38 flats, Moston-lane, Moston; 20 houses, Cecil-rd., Ashdown-av., Victoria-av., Cooper's-lane and Boothroyden-rd., Blackley; 24 houses, Barlow Moor-rd. and Barlow Hall-rd., West Didsbury, Corporation; 56 houses, Westholme-rd., Freshfield-av. and Brooklawn-av., Moston, Moston Brick and Building Co., Kenyon-lane; 25 houses, Rushford-st. and North-rd., Levenshulme, Booth & Sons (architects, Broughton, Atkinson & Eagle): additions to factory, 230, Waterloo-rd., Cheetham, J. Hyman, 230, Waterloo-rd.

Middlesbrough.—Plans prepared by S. E. Burgess, B.E., for extensions to Holgate Hospital. Tenders invited.

Neath.—R.D.C. to erect 30 houses at Glyn Neath and 14 at Onllwyn.

Newcastle-on-Tyne.—Plans for residence in Montague-ter. to cost £2,000 approved. Architect, J. W. Taylor, St. John-st.—E.C. to build two schools at Heaton. Plans for one being prepared by A. K. Tasker, Trinity-bldgs., New Bridge-st., and for other by Architects' Dept., Education Offices, Northumberland-rd.—Town Improvement and Streets Committee approved amended plans for 82 houses in Druridge-drive for Kirk & Dickinson, builders, Druridge-drive, Cowgate. Architect, F. M. Dryden, Market-st.—On instructions of Central Estates and Markets Committee, Housing Architect, 18, Cloth-market, preparing sketch plans for reconstruction of Cattle Market at £120,000.—City Council being recommended to approve 13 new clearance areas involving rehousing of 2,300 people. Cost is estimated at £200,000.

* See also List of Contracts open.

*** **In these lists every care is taken to ensure that information given is accurate and up to date, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works at the time of publication have been actually commenced.**

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Newcastle-on-Tyne.—A. K. Tasker, Trinity-bldgs., New Bridge-st., been appointed architect for school at Heaton for E.C. Plans also being prepared by Education Building Dept., Northumberland-rd., Newcastle, for another proposed school at Heaton.

Northampton.—Board of Management of hospital, Billing-rd., proposing children's department and reconstruction of out-patients' department, additional accommodation for nursing and domestic staff. Plans by Sir John Brown, F.R.I.B.A., and C. A. E. Henson, L.R.I.B.A., architects, 53, St. Giles-st. Contracts not let.

Northants.—The Nene Catchment Board applied for loan of £100,000 for improvement of Nene, including reconstruction of two locks and Barnwell bridge.

Nuneaton.—T.C. approved:—Warwickshire C.C., alterations to police station, Coton-rd.

Oswestry.—T.C. to improve swimming bath at £1,675.—T.C. proposes 30 more houses, Lwyn Farm estate.

Penryn.—T.C. instructed architect to prepare plans for 36 houses of a non-parlour type and for 8 flats.

Portchester.—Hants E.C. to acquire site for senior school.

Preston.—Board of Governors of Catholic College Association propose extensions for Preston Catholic College in connection with St. Wilfred's Church, Chapel-st. Architect, W. C. Mangan, 18, Guildhall-st.

Retford.—J. H. Edwards, P.A.S.I., 48, Nethertonrd., Worksop, preparing plans for lay-out of land at Dog Kennel-lane for 100 houses.

Rishton.—Lancashire E.C. proposing senior school with accommodation for 300 scholars. Plans by County Architect, Stephen Wilkinson, F.R.I.B.A., County Offices, Preston.

Rochdale.—Rev. Butler, P.P. of St. Gabriel's, Castleton, proposes church.

Romford.—U.D.C. to ask M.H. for sanction to erect at least 100 non-subsidised houses.

St. Albans.—Benskins (Watford) Brewery, Ltd., propose to erect "Comet" public-house, junction of St. Albans-Hatfield-rd. and Barnet by-pass-rd

Sale.—Cheshire E.C. proposing school to accommodate 80 children in Barkers-lane. Plans by County Architect, F. Anstead Browne, The Castle, Chester.

Saxilby.—Lindsey C.C. to erect bridges over Foss Dyke canal at £47,000.

Scarborough.—Property Committee of T.C. to sell land to North Riding E.C. for school on Northstead estate. It is also proposed by County E.C. to erect girls' high school on Sandybed estate.—Formal sanction received by T.C. to borrowing of £5,375 for extensions to public library. Plans by J. Paton Watson, B.E.

Seaham Harbour.—Plans prepared by J. B. Abbey, S. to U.D.C., for 90 two-bedroomed houses and 58 three-bedroomed houses on Deneside estate and tenders are invited.

Sheffield.—T.C. approved plans:—E. Gorman, petrol-filling station on Ecclesall-rd. and Rosedalegdns.—R.C. Authorities propose school on Wybourn estate. Empsall, Clarkson & Clarke, F.R.I.B.A., architects, 18, North Park-rd., Manningham, Bradford.—Woodhouse Co-operative Society, Ltd., acquired land adjoining Woodhouse cemetery for stores.—Rev. B. J. Ford, of St. Patrick's, Longley-lane, propose additions to schools. Plans by Fox & Hill, architects, Union-st., Dewsbury. Tenders to be invited.

Shiremoor.—Northumberland E.C. intends proceeding with junior school to accommodate 300 pupils. Architect, W. W. Tasker, County Architect, County Hall, Newcastle-on-Tyne.

Shrewsbury.—Fletchers Estates (Harlescott), Ltd., Whitchurch-rd., are preparing their own plans for shopping centre at Harlescott estate.

Skerton.—"Loyne Arms" hotel to be erected at Lune Ville estate by R. Hayton, licensee, "Carpenter Arms." Cost £10,000.

South Shields.—T.C. received sanction to borrow £3,300 for extending south foreshore promenade. J. Reid, B.E.—Plans completed by J. Reid, B.E., for 67 flats and 3 shops in Commercial-rd.—J. Reid, B.E., prepared plans for lay-out of 56 houses in Richardson-ter. at £18,680.—£1,450 scheme for convenience near Stanhope-rd. been prepared by J. Reid, B.E.

Southend.—E.C. approved in principle scheme for municipal college of art and commercial and technical education.

Spenborough.—U.D.C. approved plans for 32 houses, Lumb-lane and Huddersfield-rd., Liversedge. S. Drake & Sons.

Stafford.—Managers of Colwich C.E. schools (chairman, Rev. Prebendary Chilwell) propose additions to school buildings at £2,600. Architects, Wood & Goldstraw, Town Hall-chams., Tunstall, Stoke-on-Trent.—Staffordshire Mental Hospitals Board proposing slaughter-house and cottage at Cheddleton mental hospital at £1,650.

St. Helen's.—T.C. approved plans:—Rebuilding "Cricketer's Arms," Peter-st. Architects, Biram & Fletcher, George-st.—Rev. W. J. Daly, Church of Holy Cross, Corporation-st., proposes senior school and alterations to existing schools. Plans by W. Ellis, architect, Union Bank-bldgs., Hardshaw-st.

Stockport.—Catholic Authorities of St. Mary's, Heaton Norris, propose infants' and junior school at Mersey Bank, Didsbury-rd., Heaton Mersey. Architects, Hill, Sandy & Norris, 9, Albert-sq., Manchester.—Cheshire E.C. proposing senior school at Romiley, near Stockport, and infants' school in Warwick-rd., and an elementary school on Macclesfield-rd. in Bredbury area. Plans by County Architect, F. Anstead Browne, The Castle, Chester.—Cheadle Hulme Cricket, Bowling and Tennis Club, Ltd., proposing pavilion. John Knight, F.R.I.B.A., architect, 6, Cross-st., Manchester.

Stone.—Governors of Alleyne's grammar school proposing additions to buildings. Plans by C. C. Lowbridge, L.R.I.B.A., County Architect, Stafford.

Stretford.—Catholic Authorities of St. Anne's acquired site at Lostock adjoining Davyhulme for church.—T.C. approved plans for Catholic church in Ayres-rd., Old Trafford, at £14,700. Architects, Hill, Sandy & Norris, 9, Albert-sq., Manchester.—T.C. to provide public elementary school at Lostock for 600 children.—Alternative plans and elevations of proposed branch library, gardener's flat, and public conveniences, to be provided at Quadrant entrance to Longford Park been approved.

Sunderland.—T.C. to proceed with scheme for 488 houses on Ford estate.—Health Committee recommends T.C. to extend municipal hospital at £60,000; to enlarge infectious diseases hospital at £9,000. T. P. Collinge, B.E.—T.C. recommended to build model infant welfare centre at east end of the town at £10,000. T. P. Collinge, B.E.—T.C. to build 358 houses by contract. T. P. Collinge, B.E.—Libraries Committee of Corporation approved £2,000 for reading-rooms in east end of town. T. P. Collinge, B.E.—Sir John Priestman, shipbuilder, given £20,000 to E.C. for library for technical college. College to be extended on Westfield House site at £38,000. O. H. Mark, Education Offices, Committee's Architect.—E.C. secured sanction of B. of E. to special school for retarded children on Ford estate. Architect, O. H. Mark, Education Offices.

Surbiton.—London and Home Counties Joint Electricity Authority to erect central district office, Hollyfield-rd., at £10,000.

Surrey.—Highway Committee of C.C. recommended reconstruction of 23 bridges in the county.—E.C. recommend additions to Fetcham school, Leatherhead, at £6,010.—Caretaker's house at Rowan-rd. central school, Mitcham, at £788 approved.—Central school for about 280 children to be provided at West Byfleet.—Repairs to be carried out as follows: Epsom County hospital, £500; Guildford, Warren-rd. hospital, £700; Effingham, The Lodge, £390; Richmond, institution, £420.—Additional lighting and heating at Reigate Institution to be provided at £572.—£150,000 to be provided for 200 houses for police accommodation.

Sutton Coldfield.—R. J. Barnes, Bore-st., Lichfield, architect for licensed premises at Slade-rd. for Lichfield Brewery Co., Ltd.

Teignmouth.—Sanction of M.H. to borrowing of £4,500 for shelter and conveniences along Eastcliffe-ter. walk been received by U.D.C.

Torpoint.—U.D.C. sanctioned loan for 26 houses on site in front of Cambridge-ter.

Upton.—New hotel to be built adjoining cross-roads by A. F. Bussey, licensee of the "Blandford Arms," Poole. Cost £5,000.

Urmston.—J. Eades, consulting engineer, 17, St. Annes-sq., Manchester, preparing plans for dairy in Gloucester-rd.

Wallsend.—T.C. approved plans for hotel on Coast-rd. for Messrs. Calder. Plans by Hetherington & Wilson, County-chams., Newcastle.

Walsall.—Walsall and West Bromwich Joint Committee for Mental Defectives proposing extensions to Great Barr Colony mental home. Architects, Jeffries & Shipley, Kingscourt-chams., Bridge-st.

Warrington.—H. G. Rowlands, of Richard Owen & Son, architects, Westminster-chams., 3, Crosshall-st., Liverpool, been appointed architect for extensions to Winwick mental hospital for Lancashire C.C. Mental Hospital Board, Preston. Cost £50,000. Contracts not yet placed.—Peter Walker & Sons, Ltd., are to rebuild "Lord Rodney" hotel, Winwick-rd.

Whitby.—Tenders invited by U.D.C. for public conveniences on foreshore. Plans by J. Seward, S.

Whitchurch.—Salop C.C. to erect school (210 places) at £17,000.

Widnes.—Catholic Authorities of St. Bede's to erect school with accommodation for 300 children. Thomas Price & Son, architects, 77a, Lord-st., Liverpool.

Wigmore.—Style & Winch to erect hotel, corner of Maidstone-rd. and Woodside-av., at £6,000.—F. Leney & Sons, Ltd., to erect hotel, Woodside-rd., at £4,000.

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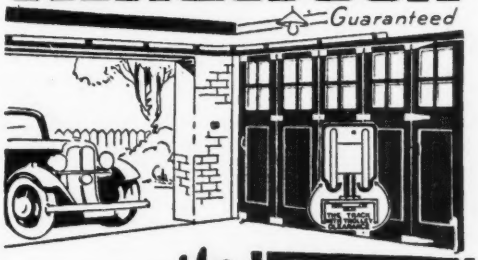
Henderson
Guaranteed



We invite you to send for our technical representative and our guide and plan book—*free.*

SLIDING DOOR GEAR

Competitive in price although the best.

P. C. HENDERSON LTD., BARKING, ESSEX
Telephone GRANGEWOOD 0247 (2 lines)

Worcester.—Worcestershire E.C. propose senior Council schools at Malvern and at Upton-on-Severn for about 300 children. A. F. Rowe, County Architect, 38, Foregate-st.

Worksop.—J. Haslam & Sons, Newcastle-av., architects for library and museum for T.C.

Worthing.—T.C. approved:—12 flats fronting Westparade and Wallace-av., M. F. North, Wood, Kendrick & E. F. Reynolds; 4 blocks of flats to front an extension of Hurst-av., M. F. North, Wood, Kendrick & E. F. Reynolds; hotel, Findon-rd., Portsmouth and Brighton United Breweries, Ltd., A. T. W. Goldsmith; 25 houses to front Ham-way, F. W. Payne and W. A. Linfield, H. M. Potter.

FIRE.

Aberdeen.—Fire destroyed cookery department of girls' high school and did damage estimated at £15,000.

NEW PUBLIC WORKS

BARKING.—Sir Giles Gilbert Scott has nominated Mr. H. V. Lanchester, F.R.I.B.A., M.T.P.I., 19, Bedford-square, W.C.1, to advise the Council upon their scheme for the new town hall. It is understood that Mr. Lanchester will submit for consideration two or three alternative sketch plans.

BEESTON.—Six bungalows and 28 houses are proposed on Beeston Fields estate by U.D.C., to plans by Mr. E. A. Bush, Surveyor, Public Offices, Beeston, from whom specifications are obtainable on £2 2s. deposit. Tenders by February 26.

BRIGHTON.—C.B. invite tenders for the erection of 10 grass and 11 "hard" tennis courts, with retaining walls, drainage, water supply, etc., at proposed county tennis ground, Withdean, Brighton. Quantities, etc., from Mr. J. G. Drew, Town Hall, on deposit of £2 2s. Plans are by Mr. A. J. McLean, F.R.I.B.A., 3, Palace-place, Brighton, and quantities by Messrs. Evans and Lynde, F.S.I., 2, Dyers-buildings, Holborn, W.C.1. Tenders by March 6.

DARLINGTON.—100 houses are proposed in contracts of 62, 20 and 18 each on various estates. T.C. now invite tenders (deposit £1 1s. each contract), returnable by February 26.

LEEDS.—Corporation invite tenders for erection of (*a*) 764 houses on four estates, with (*b*) road works, etc. Specifications obtainable from Mr. R. A. H. Livett, Housing Director, 26, Great George-street, Leeds, on deposit of £10 (*a*) and £2 (*b*). Tenders by March 11.

LEEK.—Staffs C.C. invite applications by March 2 from builders who wish to tender for the erection of extensions to Leek Council School, Buxton-road. Quantities, on deposit of £4 4s., from Mr. F. A. Hughes, Director of Education, Stafford.

LEEK.—156 houses are proposed by the U.D.C., to plans by Mr. W. E. Beacham, Council's Surveyor, Town Hall, from whom specifications are obtainable, on £3 3s. deposit. Tenders by March 4.

LITHERLAND.—66 houses are proposed by U.D.C. at Sefton-road and Moss-lane, Litherland. Specifications from Mr. Geo. Ponsford, M.Inst.M. and Cy.E., Engineer and Surveyor, Council Offices, Litherland, on deposit of £2 2s. Tenders by March 1.

LUTON.—Luton R.D.C. propose the erection of 60 houses in six parishes and invite tenders by March 6. Specifications, on deposit of £2 2s., from the Surveyor, Mr. H. Pickering, M.Inst.M. and Cy.E., 73, West Parade, Dunstable.

MANCHESTER.—1,102 houses are to be erected on five estates by the T.C., to plans by the Housing Director. Tenders are now invited, by March 24, and specifications are obtainable after March 4 from the Director, on deposit of £2 2s.

PORTSMOUTH.—The Southern Railway is to remove its goods station to a new site, 2,000 ft. in length, at Fratton. Tenders are now being invited by the Railway Company for the new station, which will cost about £70,000.

SOUTHAMPTON.—The Merry Oak Housing Estate School is to be completed, and tenders for the work are now invited. Application must be made with deposit £2 2s., by February 18, to the Borough Engineer, Civic Centre, Southampton.

PRICES CURRENT OF MATERIALS.*

Owing to the exceptional circumstances which prevail at the present time prices of materials should be confirmed by inquiry.

BRICKS, &c.

Per 1,000 Alongside, in River Thames up to Mortlake.

	£ s. d.
Best Stocks	4 2 0
Second Hard Stocks	3 10 0

Per 1,000. Delivered at London Goods Stations.

	£ s. d.		£ s. d.
"Phorpres"	*2 8 3	Flettons, B'll'n'se	3 6 3
Flettons at King's Cross	*2 8 3	Best Blue Pressed Staffs	8 5 0
Do., grooved for Plaster	*2 10 3	Do. Bullnose	8 15 0
		Blue Wire Cuts	7 0 0

White Midhurst Facing Bricks (delivered London site) 5 0 0
"Phorpres" whites (King's Cross) *3 11 3
"Phorpres" Rustic Facings (King's Cross) *3 6 3
Best Stourbridge Fire Brick:—
2½ in. 7 15 0 3 in. 8 15 0
* Delivered to site in W.C. district, 6s. extra per 1,000.

GLAZED BRICKS—

Best White Ivory and Salt Glazed Stretcher	21 0 0	D'ble Str'tch'rs	29 10 0
		D'ble Headers	26 10 0
Headers	20 10 0	One side and two Ends	30 10 0
Quoins, Bull-nose and 4½in. Flats	27 10 0	Two sides and one End .. Splays and Squints	31 10 0 28 0 0

Second Quality, £1 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours. Hard Glaze, £5 10s. extra over white.

PARTITION SLABS.

Delivered London Area.

CLINKER CONCRETE.

2" per yd. sup.	1 6	3" per yd. sup	2 0
2½" " "	1 8	4" " "	2 4

CRANHAM TERRA COTTA.

2" per yd. sup.	3 0	3" per yd. sup.	3 8
2½" " "	3 6	4" " "	4 7

HEMPSTEAD—KEYED TWO SIDES.

12" x 9" x 2"	2 3	12" x 9" x 3"	2 9
12" x 9" x 2½"	2 6	12" x 9" x 4"	3 6

Per yard super d/d. Free on site, London.

	s. d.	
Thames Ballast	7 3	per yd. delivered 2 miles radius Paddington.
Pit Ballast	6 3	" "
Pit Sand	7 9	" "
Washed Sand	8 3	" "
¾ in. Shingle	7 3	" "
¾ in. Broken Brick	11 3	" "
Pan Breeze	8 3	" "

CEMENT.

Best British Portland Cement, Standard Specification, delivered London Area in jute sacks (11 to ton), or paper bags (20 to ton) free (non-returnable):—

	£ s. d.
4 ton loads and upwards site Per ton.	2 0 0
1 ton to 4 tons site	2 2 0
Alongside Vauxhall in 80-ton lots	1 16 0
"Ferrocrete" Rapid Hardening Cement:—	
4 ton loads and upwards site	2 6 0
1 ton to 4 tons site	2 8 0
Alongside Vauxhall in 80-ton lots	2 2 0

NOTE.—Jute sacks are charged 1s. 6d. each and credited 1s. 6d. nett if returned in good condition within three months, carriage paid.

"Colorcrete" Nos 1 and 2 Coloured Rapid Hardening Portland Cement in 1 cwt. paper bags free (non-returnable) in 1-ton lots and upwards site	3 6 0
"Snowcrete" White Portland Cement in 1 cwt. paper bags free (non-returnable) 1 ton and upwards site	8 15 0
Super Cement (Waterproof) paper bags free	3 10 0
Roman Cement	6 15 0
Parian Cement	5 15 0
Keene's Cement, White	5 15 0
" " Pink	5 10 0

PLASTER.

Plaster, Coarse, Pink	2 12 0
" " White	2 17 6
" Fine	5 0 0
Sirapite, Coarse	3 5 0
" Finish	3 13 0
Grey Stone Lime	2 2 0
Chalk Lime	2 2 0
Best Ground Blue Lias Lime	1 17 6
Hair per cwt.	2 2 6
Granite Chippings	1 12 0

NOTE.—Sacks are charged 1s. 9d. each and credited 1s. 6d., if returned in good condition within three months carr. pd.

Stourbridge Fireclay in sacks 37s. 0d. per ton at rly. dep.

STONE.

	s. d.
BATH STONE.—Delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube	2 10
BEER STONE—RANDOM BLOCK— Free on rail at Seaton Station, per ft. cube	2 3
Delivered free on rail Nine Elms, S.R. per ft. cube	1½
Selected approximate size one way, 1d. per cubic foot extra; selected approximately three sizes or for special work, 3d. per cubic foot extra.	
PORTLAND STONE— Brown Whitbed, in random blocks of 20ft. average, delivered in railway trucks at Nine Elms, S. Rly., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R., per ft. cube	4 4½
Do. do. delivered on road waggons at above stations, per ft. cube	4 5½
White basebed, 3d. per ft. cube extra.	
NOTE.—1d. per ft. cube extra for every foot over 20 ft. *average*, and ½d. beyond 30 ft.	
HOPTON-WOOD STONE— F.O.R. Quarries Wirksworth, Derbyshire, Random blocks from 10ft. and over P.ft.cb.	s. d. 14 0
Sawn two sides	22 6
Sawn, three or four sides	27 9
CHILMARK—RANDOM BLOCK— At Nine Elms, per ft. cube	3 11
YORK STONE, BLUE—*Robin Hood Quality.* Delivered at any Goods Station London.	
6 in. sawn two sides landings to sizes (under 30 ft. super) Per ft. super	5 6
6 in. rubbed two sides, ditto "	6 0
2 in. sawn two sides slabs (random sizes),	2 3½
2 in. to 2½ in. sawn one side slabs (random sizes) "	1 6½
1½ in. to 2 in., ditto "	1 3½
HARD YORK— Delivered at any Goods Station, London.	
Scappled random blocks Per ft. cube	6 3
6 in. sawn two sides landing to sizes (under 40 ft. super) Per ft. super	5 1½
6 in. rubbed two sides, ditto "	6 1½
4 in. sawn two sides slabs (random sizes),	3 1½
3 in. ditto ditto "	2 8
2 in. self-faced random flags Per yd. super	7 6

CAST STONE.

Delivered in London area in full van loads, per ft cube: Plain, 8s. 6d.; Moulded ,9s. 6d.; Cills, 10s. 0d.

SOFT WOOD.

GOOD BUILDING DEAL.

Inches.	Per stan.	Inches.	Per stan.
4 × 11	£23 10	3 × 6	£18 10
4 × 9	22 10	3 × 11	19 10
4 × 8	21 0	2 × 11	19 10
4 × 7	19 0	3 × 9	19 10
3 × 8	17 10	2½ × 9	19 10
3 × 7	18 0	3 × 4½	17 10
2½ × 7	18 0	3 × 4	17 10

PLANED BOARDS.

1 × 11	£22 10	1 × 9	£21 0

PLAIN EDGE FLOORING.

Inches.	per sq.	Inches.	per sq.
¾	16/-	1½	25/-
⅞	17/-	1¾	31/6
1	19/-		

TONGUED AND GROOVED FLOORING.

Inches.	per sq.
1	21/-
1½	26/-
1¾	32/6

MATCHING (BEST).

Inches.	per sq.
¾	16/-
¼	18/6
1	22/6

ins. BATTENS.	s. d.	SAWN LATHS.	s. d.
¾ × 2 ..per 100 ft.	2 6	Per bundle	2 3

HARD WOOD.

1 INCH AND UP THICK.

Average price for prime quality.	£ s. d.
Dry Austrian Wainscot, per ft. cube	0 15 0
Dry American and/or Japanese Figured Oak, per ft. cube	0 12 0
Dry American and/or Japanese plain Oak, per ft. cube	0 10 0
Dry sq. edged Honduras Mahogany, per ft. cube	0 14 0
Dry log-cut Honduras Mahogany, per ft. cube	0 16 0
Dry Cuba Mahogany, per ft. cube	1 1 0
Dry Teak, per ft. cube	0 14 0
Dry American Whitewood, per ft. cube	0 10 0
Best Scotch Glue, per cwt.	3 0 0
Liquid Glue, per cwt.	4 7 0 to 5 10 0

HUDDERSFIELD Building Society

Ample funds are available to assist in house purchase. Builders with sound schemes of development are invited to consult with the Society.

Branches throughout the Country.

Write for the Folder "Mortgage Facilities" to The Huddersfield Building Society, Britannia House, 203, Strand, London, W.C.2, or from the Head Office, Britannia Buildings, Huddersfield. Andrew Stewart, C.A., Managing Director.

WHEN YOU INVEST—A HOUSE IS BEST!

SLATES.

First quality slates from Bangor or Portmadoc, carriage paid in full truck loads to London Rate Station. Per 1,000 actual.

	£ s. d.		£ s. d.
24 by 12 ..	29 15 0	18 by 10 ..	15 12 6
22 by 12 ..	25 0 0	18 by 9 ..	13 15 0
22 by 11 ..	22 10 0	16 by 10 ..	13 10 0
20 by 12 ..	22 0 0	16 by 8 ..	10 7 6
20 by 10 ..	19 7 6		

TILES.

Delivered at London rate stations in full truck loads of not less than 6 tons.

	Per 1,000 f.o.r. London.
Best machine-made tiles from Broseley or Staffordshire district	£4 7 0
ditto hand-made ditto	5 0 0
Ornamental ditto	5 8 6
Hip and valley tiles (per dozen) Hand-made	0 9 6
Machine-made	0 9 0

METALS.

JOISTS, GIRDERS, &c., TO LONDON STATION, PER TON— R.S. Joists, cut and fitted	£11 10 0
Plain Compound Girders	13 10 0
Stanchions	15 0 0
In Roof Work	18 10 0

MILD STEEL ROUNDS.—To London Station, per ton.

Diameter.	£ s. d.	Diameter.	£ s. d.
¼ in.	12 0 0	⅝ in. to ¾ in.	10 15 0
⅜ in.	11 0 0	⅞ in. to 2¾ in.	10 10 0

WROUGHT-IRON TUBES AND FITTINGS—
(Discount off List for lot of not less than £7 net value delivered direct from Works, 2½ per cent. less above gross discounts, carriage forward, if sent from London Stocks.)

	Standard Wrot. Mild Steel Tubes and Tubulars Sizes ⅛in. to 6in.	Genuine Wrot. (Puddled) Iron Tubes and Tubulars Sizes ⅛in. to 6in.	Standard Fittings Sizes ⅛in. to 6in.	Standard Flanges Sizes ⅛in. to 6in.
	%	%	%	%
Gas	65	52½	57½	70
Water	61½	48½	52½	65
Steam	57½	45	47½	60
Galv. gas	52½	40	47½	60
Galv. water	47½	35	42½	55
Galv. steam	42½	30	37½	50

C.I. HALF-ROUND GUTTERS—London Price ex Works

Per yd. in 6 ft. lengths.	Gutters.	Angles and Stop Nozzles.	Stop Ends.
3 in.	1/5½	1/1½	4½d.
3½in.	1/6½	1/3	5½d.
4 in.	1/6½	1/4½	6½d.
4½in.	1/8	1/6½	9½d.
5 in.	1/10½	1/8½	10d.

O.G. GUTTERS.

3 in.	1/7½	1/5½	7d.
3½in.	1/9½	1/5½	7½d.
4 in.	1/11	1/6½	8½d.
4½in.	2/0	1/9½	9½d.
5 in.	2/4½	2/0½	11½d.

RAIN WATER PIPES, &c.

Per yd. in 6 fts.	Pipe.	Bends, stock Branches, angles, stock angles.
2 in.	2/2½	1/4½ 2/0
2½in.	2/3½	1/6½ 2/4½
3 in.	2/9½	1/11 2/10½
3½in.	3/3½	2/3½ 3/3½
4 in.	3/9	2/9 4/0½

Less 20 per cent. trade discount.
Tonnage allowance—4 ton lots, 5 per cent.
2 ton lots, 2½ per cent.

L.C.C. COATED SOIL PIPES—London Prices ex Stock.

	Pipe,	Bends, stock Branches, angles, stock angles.	
	s. d.	s. d.	s. d.
2 in. per yd. in 6 fts.	2 8	1 11	2 3
2½in. " ..	3 0	2 1	2 10
3 in. " ..	3 4	2 3	3 5
3½in. " ..	3 7½	2 10	3 11
4 in. " ..	4 0	3 2	4 6

L.C.C. COATED DRAIN PIPES—London Prices ex Stock.

	Pipe,	Bends, stock Branches, angles, stock angles.	
	s. d.	s. d.	s. d.
4 in. per yd. in 9 ft. lengths	3 0	4 6	7 0
	cwt. qr. lbs.		
4 in. "	1 1 20 ..	4 9	5 6 8 9
5 in. "	1 2 22 ..	5 10	9 6 13 6
6 in. "	2 0 6 ..	6 10	12 0 18 0

Gaskin for jointing 41/- per cwt.

IRON—	Per ton in London. £ s. d.		£ s. d.
Common bars	10 0 0	to	10 10 0
Staffordshire Crown Bars— Good merchant quality	10 10 0	to	11 0 0
Staffordshire Marked Bars	14 0 0	..	15 0 0
Mild Steel Bars	9 0 0	..	10 0 0
Steel Bars, Ferro-Concrete quality, basis price	8 10 0	..	9 0 0
Hoop iron, basis price	11 0 0	..	12 0 0
" Galvanised	27 10 0	..	28 10 0

* The information given on this page has been specially compiled for THE BUILDER, and is copyright. The aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

PRICES CURRENT OF MATERIALS—(*contd.*).

Per ton in London.

	£ s. d.	£ s. d.
IRON—		
Soft Steel Sheets, Black—		
Ordinary sizes, to 20 g.	11 0 0 ..	11 10 0
" " " 24 g.	12 0 0 ..	13 0 0
" " " 26 g.	14 0 0 ..	15 0 0
Sheets Flat Best Soft Steel, C.R. and C.A. quality—		
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g. ..	14 0 0 ..	15 0 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 22 g. and 24 g.	15 0 0 ..	16 0 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 26 g.....	17 10 0 ..	18 10 0
No. 1 quality £4 per ton extra.		
Flat and Galvanised Corrugated Sheets—		
Ordinary sizes, 6 ft. to 9 ft. to 20 g.	13 10 0 ..	15 0 0
Ordinary sizes, 6 ft. to 9 ft. to 22 g. and 24 g...	15 10 0 ..	16 10 0
Ordinary sizes, 6 ft. to 9 ft. to 26 g.	16 10 0 ..	18 0 0
Sheets, Galvanised, Flat, Best quality—		
Best Soft Steel Sheets, 6 ft. by 2 ft. to 3 ft. to 20 g. and thicker	14 10 0 ..	16 10 0
Best Soft Steel Sheets, 22 g. and 24 g.	15 0. 0 ..	17 0 0
Best Soft Steel Sheets, 26 g.	16 10 0 ..	18 0 0
Cut Nails, 3 in. to 6 in.	15 10 0 ..	17 0 0
(Under 3 in. usual trade extras.)		

METAL WINDOWS.—Standard sizes, suitable for complete houses, including all fittings, painting two coats, and delivery to job, average price about 1s. 4d. to 1s. 7d. per foot super.

COPPER.

		s. d.
Seamless Copper tubes (basis)	per lb.	0 9
Strong sheet	"	0 10
Thin	"	0 11
Copper nails	"	1 0
Copper wire	"	0 11

PLUMBERS' BRASS WORK.

Delivered in London.

NEW RIVER PATTERN SCREW DOWN BIB COCKS FOR IRON.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.	
29/-	45/-	76/-	153/-	246/-	510/-	per doz.

NEW RIVER PATTERN SCREW DOWN STOP COCKS AND UNIONS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.	
41/6	62/-	92/-	174/-	300/-	588/-	per doz.

RIVER PATTERN SCREW DOWN MAIN FERRULES.

½ in.	¾ in.	1 in.	
39/-	60/-	116/6	per doz.

CAPS AND SCREWS.

1¼ in.	1½ in.	2 in.	3 in.	3½ in.	4 in.	
7/6	10/-	14/-	23/-	30/-	42/-	per doz.

DOUBLE NUT BOILER SCREWS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.	
7/6	11/-	17/-	29/-	36/-	63/-	per doz.

BRASS SLEEVES.

1½ in.	2 in.	3 in.	3½ in.	4 in.	
10/-	12/-	20/-	24/-	31/-	per doz.

NEW RIVER PATTERN CROYDON BALL VALVES S.F.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	
35/-	56/-	98/-	162/-	228/-	per doz.

DRAWN LEAD P. & S. TRAPS WITH GLASS CLEANING SCREW.

	1½ in.	1¾ in.	2 in.	3 in.	
8 lbs. P. traps	33/-	41/-	56/-	101/-	per doz.
8 lbs. S. traps	35/-	45/-	66/-	126/-	per doz.

TIN.—English Ingots, 2/5 per lb. SOLDER.—Plumbers' 1/-, Tinmen's, 1/2, Blowpipe, 1/3 per lb.

LEAD, &c.

(Delivered in London.)	£ s. d
LEAD.—Sheet, English, 4 lb. and up.....	17 10 0
Pipe in coils	17 0 0
Soil pipe.....	24 15 0
Compo pipe	26 0 0

NOTE.—Country delivery, 20/- per ton extra; lots under 3 cwt. 4/- per cwt. extra, and over 3 cwt. and under 5 cwt., 2/6 per cwt. extra. Cut to sizes, 4/- cwt. extra.

Old lead, ex London area, at Mills..... per ton £9 5 0

PAINTS, &c.

	£ s. d.
Raw Linseed Oil, in pipes .....per gallon	0 2 5
" " " in barrels .... "	0 2 7
" " " in drums .... "	0 2 9
Boiled " " in barrels .... "	0 2 10
" " " in drums .... "	0 3 0
Turpentine, in barrels ..... "	0 4 5
" in drums (10 galls.).. "	0 4 7
Genuine Ground English White Lead, per ton	43 0 5
(In not less than 5-cwt. casks.)	
Extra for 1-cwt. kegs over 5-cwt. casks is 5/9 cwt.	

GENUINE WHITE LEAD PAINT.

"Father Thames," "Nine Elms," "Park," "Supremus," "St. Paul's," "Morganswyte," "Polacco," "J" Brand, and other best brands (in 14-lb. tins) not less than 5-cwt. lots	£ s. d.
per ton delivered	61 0 0
Red Lead, Dry (packages extra) ....per ton	31 0 0
Best Linseed Oil Putty ..... per cwt.	0 13 6
Size. XD quality ..... fkn.	0 3 0

VARNISHES, &c.

		Per gallon
Oak Varnish .....Outside		0 14 0
Fine Do.	Do.	0 16 0
Fine Copal	Do.	0 18 0
Pale Copal	Do.	1 0 0
Pale Opal Carriage	Do.	1 4 0
Best Do.	Do.	1 12 0
Floor Varnish .....Inside		0 18 0
Fine Pale Paper	Do.	0 18 0
Fine Copal Cabinet	Do.	1 2 0
Fine Copal Flatting	Do.	1 0 0
Hard Drying Oak.....	Do.	0 18 0
Fine Hard Drying Oak	Do.	0 19 6
Fine Copal Varnish	Do.	1 0 6
Pale Do.	Do.	1 12 0
Best Do.	Do.	1 2 6
Best Japan Gold Size		0 12 6
Best Black Japan.....		0 10 0
Oak and Mahogany Stain (water)		0 12 0
Brunswick Black		0 7 6
Berlin Black		0 14 0
Knotting (patent).....		0 15 0
French and Brush Polish		0 12 0
Liquid Dryers in Terebene		0 9 0
Cuirass Black Enamel		0 7 0

GLASS.

ENGLISH SHEET GLASS IN CRATES OF STOCK SIZES.

	per ft.		per ft.
15 oz. fourths ..	2⅜d.	32 oz. fourths	6½d.
15 " thirds	2⅝d.	32 " thirds	8½d.
21 " fourths ..	3½d.	Obscured Sheet, 15 oz.	3d.
21 " thirds	3⅞d.	" " 21 "	4½d.
26 " fourths ..	4¼d.	Fluted, 15 oz. 6½d., 21 oz. 9d.	
26 " thirds	5¾d.	Em'lld, 15 oz. 4½d., 21 oz. 5½d.	

Extra price according to size and substance for squares cut from stock.

ENGLISH ROLLED plate in CRATES OF STOCK SIZES.

	Per ft.
Rolled plate ⅛ in.	4¾d.
Rough rolled 3/16 in.	5¾d.
Rough rolled ¼ in.	5¾d.
Figured, Rolled, Baltic, Oceanic, Arctic, Stippolyte, and small and large Flemish White....	5½d.
Do. tinted	8d.
Rolled Sheet	5d.
White Rolled Cathedral	5d.
Tinted Do.	7½d.

Cast plate is same price as rough rolled.

"VITA" GLASS.	Per ft. s. d.
Clearsheet—not exceeding 1 foot	1 0
Do. do. 2 feet	1 3
Do. over 2 feet	1 9
Polished plate—not exceeding 1 foot	1 6
Do. do. 2 feet	3 0
Cathedral—not exceeding 1 foot	1 0
Do. larger sizes	1 6
Horticultural Sheet and Cathedral "Vita" Glass. Sizes up to 24 inches by 18 inches or not exceeding 3 feet	1 0
3/16 in. Wired Georgian Design. Sizes up to 96 inches long by up to 24 inches wide.....	2 9

BUILDING TRADE WAGES IN SCOTLAND*

Following are grade rates authorised by the Scottish N.J.C. for the Building Industry. Painters by ruling of the Scottish National Painters' and Decorators' Joint Council, have from January 1 new rates. Grade A towns, 1/6 per hour; Grade B, 1/4; Aberdeen has a special rate of 1/5½. The new rate for Plasterers has been fixed at 1s. 6½d. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur.

Grade Classification....	A	A¹	A²	A³	B	B¹	B²	B³
Craftsmen	1/6	1/5½	1/5	1/4½	1/4	1/3½	1/3	1/2½
Labourers	1/1½	1/1¼	1/0¾	1/0½	1/0	/11¾	/11¼	/11

Aberdeen .....A	Dundee .....A	Hawick .....A²	Perth .....A
Airdrie.....A	Dunfermline ...A	Helensburgh ...A	Perthshire .....A²
Alexandria .....A	Dunoon .....A	Inverness .....B	Peterhead .....A²
Arbroath.....A	East Lothian...A	Kilmarnock...A	Renfrewshire .....A
Ayrshire .....A	Edinburgh .....A	KincardineshireA²	Rothesay .....A
Bathgate.....A	Falkirk .....A	Kinross-shire ...A	Roxburghshire ...A²
Bo'ness .....A	Forfarshire ...A²	Kirkcaldy .....A	St. Andrews .....A
Broughty Ferry ...A	Fort William B	Lanarkshire ...A	Selkirkshire .....A
Clackmannanshire...A	Galashiels .....A²	Leith .....A	Stirling .....A
Coatbridge .....A	Glasgow .....A	Midlothian .....A	Stirlingshire, WestA
Dumbartonshire ...A	Greenock.....A	Motherwell ...A	West Lothian ...A
Dumfries.....A²	Hamilton .....A	Peeblesshire ...A²	Wishaw .....A
Dumfriesshire.....A²			

* The information given in this table is copyright. The rates of wages in various towns in England and Wales are given on page 337.

THE SCOTTISH BUILDER

NEW BUILDINGS

ABERDEEN.—PAVILIONS.—Plans to be prepared for new pavilions, etc., at Hazlehead-park. Mr. A. J. Ogg Allan, architect, 25, Union-terrace.—Plans have been prepared for a scheme of reconstruction and extension to the Central Auction Marts. Messrs. Walker and Duncan, architects, 3, Golden-square, Dundee.—Plans are in hand for new public garage and other offices, to be erected at Back Hilton-street. Mr. J. Scott Sutherland, architect, 10, Albyn-place, Aberdeen.

BARMILL.—HOUSES.—The Ayr C.C. has agreed to a recommendation by the Public Health Committee to erect 32 houses, at £11,293.

BLANTYRE.—SCHOOL.—Lanarkshire C.C. are negotiating for the purchase of a site for the new St. Joseph R.C. school. Mr. John Stewart, architect, Albert-street, Motherwell.

CARDONALD.—ADDITIONS.—Plans are in hand for reconstruction and additions at Messrs. Ritchie and Sons, Ltd. Mr. Robert J. Carruthers, architect, 155, Greenhead-street, Glasgow.

CUMNOCK.—HOUSES.—The Department of Health for Scotland has intimated approval of the tenders for the T.C.'s building operations in connection with slum clearance schemes at Herdstone-place. There are to be 144 houses in the scheme. Messrs. James Alexander and Sons, Galston, are to carry out the mason, brick and digger work, and Mr. Hercules Taylor, the plaster and cement work.

CUPAR.—EXTENSIONS.—The Dean of Guild Court has granted warrant for the erection of two extensions to the Adamson Cottage Hospital, Cupar, estimated to cost about £7,500.

DUNFERMLINE.—HOUSING.—At the Dean of Guild Court, plans were passed for the erection by the Corporation of 92 houses at their Bellyeoman housing site.

DUNOON. — SHELTER. — The T.C. have agreed to erect a large shelter on the site to the north of the Pavilion. The estimated cost is £3,000.

EDINBURGH.—BUILDING.—The Dean of Guild Court has passed the following plans :—The Cockburn Building Co., Ltd., 64 houses at Boswall Loan, Wardieburn, and the Scottish Widows' Fund and Life Assurance Society, alterations at 10 and 11, St. Andrew-square.

EDINBURGH. — WALL. — The T.C. has approved of the first step in what may be an extensive improvement scheme for the Forth shore, from Granton to Cramond. They authorised the building of an enclosing wall at a cost of £21,500.

FALKLAND.—HOUSES. — The T.C. has decided to build 22 houses.

GLASGOW.—HOUSES. — The Corporation have approved of the erection at Denmark-street of 96 houses of four and three apartments, and at Panmure-street of a new scheme of 102 houses in two and three tenement blocks. Mr. William McNab, Housing Architect, Directors Office, Glasgow.

GLASGOW.—PREMISES.—Plans are in hand for new premises to be erected at Possilpark for Messrs. Galbraiths Stores, Ltd., Paisley. Messrs. Cook and Hamilton, architects, 10, Gilmore-street, Paisley.

GLASGOW. — ADDITIONS. — Plans are in hand for reconstruction and additions to the bakery of Messrs. Beatties, Ltd. Messrs. John Keppie and Henderson, architects, 187, West Regent-street.

GLASGOW.—BUILDING.—The Dean of Guild Court has passed the following plans :—The Right Rev. J. R. Darbyshire and other trustees for the Diocese of Glasgow and Galloway of the Episcopal Church in Scotland, church at Craigpark-street, Dennistoun; the Most Rev. D. Mackintosh and others for the Roman Catholic Archdiocese of Glasgow, to erect a hall at Carmunnock; the Bank of

(*Continued on page* 345.)

CURRENT PRICES FOR BUILDING WORK IN LONDON*

EXCAVATOR.

		s.	d.
Digging and throwing or wheeling and filling carts, and carting away to shoot—6 ft. deep	per yard cube	8	0
Add if in clay	,, ,,	1	0
Add for every additional depth of 6 ft.	,, ,,	0	6
Planking and strutting to trenches	per foot super	0	3
Do. to sides of excavation, including shoring	,, ,,	1	0

CONCRETOR.

Portland cement concrete in foundations 1 to 6	per yard cube	24	0
Add if in underpinning in short lengths	,, ,,	5	0
Add if in floors 6 in. thick	,, ,,	2	0
Add if in beams	,, ,,	2	6
Add if aggregate 1 : 2 : 4	,, ,,	8	0
Add for hoisting not exceeding 10 ft. beyond the first 10 ft.	,, ,,	1	6

BRICKLAYER.

		£	s.	d.
Reduced brickwork in lime mortar and Fletton bricks	per rod	26	0	0
Add if in stocks	,,	6	0	0
Add if in Staffordshire blues	,,	22	0	0
Add if in Portland cement and sand	,,	1	5	0

FACINGS.

Extra for facing in English or Flemish bond for every 10s. per 1,000 over the price of the common bricks	per ft. super	0	0	1¼

POINTING.

Neat flat struck or weathered joint	,, ,,	0	0	3

ARCHES.

Extra only to the price of ordinary brickwork :—				
Fair external in half brick rings	,, ,,	0	0	10
Axed in stocks	,, ,,	0	0	9
Rubbed and gauged jointed in putty camber or segmental	,, ,,	0	5	9

SUNDRIES.

Damp course in double course of slates breaking joint and bedded in Portland cement	,, ,,	0	0	11
Setting ordinary register grates and stoves	each	1	0	0
Setting kitchener, including forming flues, &c., with all necessary fire bricks	,,	4	15	0

ASPHALTER.

		s.	d.
Half-inch horizontal damp course	per yard super	4	6
Three-quarter-inch vertical damp course	,, ,,	9	6
Three-quarter-inch on flats in two thicknesses	,, ,,	6	0
Angle fillet	per foot run	0	3
Skirting and fillet 6 in. high	,, ,,	1	0

MASON.

York stone templates fixed	per foot cube	12	9
York stone sills fixed	,, ,,	22	0
Bath stone and all labour fixed	,, ,,	10	6
Beer stone and all labour fixed	,, ,,	15	0
Portland stone fixed	,, ,,	15	6
Chilmark stone fixed complete	,, ,,	16	6

SLATER.

Welsh 16 in. × 8 in. 3 in. lap. including nails	per square	70	0
Do. 20 in. × 10 in. Do. Do.	,,	71	6
Do. 24 in. × 12 in. Do. Do.	,,	73	6

CARPENTER AND JOINER.

Fir framed in plates	per foot cube	3	6
Do. joists	,, ,,	4	0
Do. roofs, floors and partitions	,, ,,	4	6
Do. trusses	,, ,,	6	9

	¾″	1″	1¼″	2″
Deal rough close boarding per sq.	30/-	35/-	43/-	70/-

Flat centering for concrete floor, including struts or hangers	,,	50	0
Do. to beams	per ft. sup.	0	8
Centre for arches	,,	1	6
Gutter boards and bearers	,,	1	0

FLOORING.

	¾″	1″	1¼″	1½″
Deal-edges shot per sq.	—	38/-	45/-	52/-
Do. tongued and grooved ,,	—	43/-	50/-	58/-
Do. matchings ,,	40/-	45/-	—	—
Moulded skirtings, including backings and grounds per ft. sup.	1/4	1/7	1/9	2/3

SASHES AND FRAMES.

		s.	d.
One-and-a-half moulded sashes or casements	per foot super	1	9
Two Do. Do. Do.	,, ,,	2	0
Add for fitting and fixing	,, ,,	0	2
Deal cased frames with 1 in. inner and outer linings, 1½ in. pulley stiles tongued to linings, hard wood sills with 2 in. moulded sashes in squares, double hung, double hung with pulleys, lines and weights, average size		3	3

DOORS.

	1½″	1¾″	2″
Two-panel square framed per ft. sup.	2/-	2/3	2/5
Four-panel Do. ,,	2/4	2/6	2/9
Two-panel moulded both sides ,,	2/6	2/9	2/11
Four-panel Do. Do. ,,	2/9	2/11	3/2

CARPENTER AND JOINER—continued.

FRAMES.

		s.	d.
Deal wrot moulded and rebated	per foot cube	12	0

	1″	1¼″	1½″
Plain deal jamb linings framed per ft. sup.	1/7	1/8	1/11
Deal shelves and bearers ,,	1/2	1/4	1/7
Add if cross-tongued ,,	2d.	2d.	2d.

STAIRCASES.

	1″	1¼″	1½″	2″	2½″
Deal treads and risers in and including rough brackets	2/0	2/3	2/8	—	—
Deal strings wrot on both sides and framed	1/8	2/-	2/2	2/8	—

		s.	d.
Housings for steps and risers	each	0	11
Deal balusters, 1 in. x 1½ in.	per ft. run	0	9
Mahogany handrail, average 3 in. x 3 in.	,, ,,	5	6
Add if ramped	,, ,,	11	0
Add if wreathed	,, ,,	22	0

FIXING ONLY IRONMONGERY (INCLUDING SCREWS).

6 in. barrel bolts	8½d.	Rim locks	2/-
Sash fasteners	11½d.	Mortice locks	4/6
Casement fasteners	1/5	Patent spring hinges and letting into floor and making good	19/-
Casement stays	1/2		
Cupboard locks	1/5		

FOUNDER AND SMITH.

		s.	d.
Rolled steel joists	per cwt.	15	0
Plain compound girders	,,	18	0
Do. stanchions	,,	20	9
In roofwork	,,	26	6

RAIN-WATER GOODS.

		3″	4″	5″	6″
Half-round plain rebated joints	ft. run	1/-	1/1	1/3	1/6
Ogee Do. Do.	,,	1/2	1/3	1/9	2/3
Rain-water pipes with ears	,,	1/3	1/10	—	—
Extra for shoes and bends	each	2/9	3/11	—	—
Do. stopped ends	,,	1/1	1/4	1/9	2/6
Do. nozzles for inlets	,,	2/2	2/7	3/7	4/-

PLUMBER.

		s.	d.
Milled lead and laying in flashings and gutters	per cwt.	32	0
Do. do. flats	,,	31	0
Extra labour and solder in coated cesspools	each	6	0
Welt joint	per ft. run	0	4
Soldered seam	,, ,,	1	2
Copper nailing	,, ,,	0	3

		½″	¾″	1″	1½″	2″	4″
Drawn lead waste	per ft. run	10½	1/2	1/5	2/1	2/5	—
Do. service...	,,	1/1	1/6	1/9	2/8	—	—
Do. soil	,,	—	—	—	—	—	5/-
Bends in lead pipe	each	—	—	—	—	2/-	5 6
Soldered stop ends	,,	0/7	0/11	1/3	2/-	2/6	—
Red lead joints	,,	0/9	0/10	1/1	1/7	1/10	3/6
Wiped soldered joints	,,	2/-	2/6	2/9	3/5	4/3	6/-
Lead traps and cleaning screws	,,	—	—	—	10/-	13/-	—
Bib cocks and joints	,,	6/-	9/-	13/-	—	—	—
Stop cocks and joints	,,	10/6	12/6	17/6	50/-	—	—

PLASTERER.

		s.	d.
Render, float and set in lime and hair	per yard sup.	2	0
Do. Do. Sirapite	,, ,,	2	3
Do. Do. Keen's	,, ,,	3	0
Add saw lathing	,, ,,	1	4
Add metal lathing	,, ,,	2	4
(Not including hangers or runners, etc., for suspended ceilings.)			
Portland cement screed	,, ,,	1	7
Do. plain face	,, ,,	3	3
Mouldings in plaster	per 1 girth	0	1½
One-and-a-half granolithic pavings	per yard sup.	4	6

GLAZIER.

		s.	d.
21-oz. sheet plain	per foot sup.	0	6½
26-oz. Do.	,, ,,	0	7½
Obscured sheet	,, ,,	0	8
⅛-in. rolled plate	,, ,,	0	9
¼-in. rough rolled or cast plate	,, ,,	0	10
¼-in. wired cast plate	,, ,,	1	1

PAINTER.

		s.	d.
Preparing and distempering, 2 coats	per yard sup.	0	7½
Knotting and priming	,, ,,	0	7
Plain painting, 1 coat	,, ,,	0	9
Do. 2 coats	,, ,,	1	2
Do. 3 coats	,, ,,	1	9
Do. 4 coats	,, ,,	2	4
Graining	,, ,,	2	3
Varnishing twice	,, ,,	1	9
Sizing	,, ,,	0	3
Flatting	,, ,,	0	7
Enamel	,, ,,	1	1
Wax polishing	per foot sup.	0	6
French polishing	,, ,,	1	2
Preparing for and hanging paper	per piece 2/- to	4/-	

* These prices apply to *new buildings only*. They cover superintendence by foreman and carry a profit of 10% on the prime cost without establishment charges. A percentage of 1½ should be added for Employers' Liability and National Health and Unemployment Act, and from 1s. 6d. per £100 for Fire Insurance. The whole of the information given on this page is copyright.

TRADE NEWS

The Paramount Theatre, Glasgow.

The suppliers of the marquise for the Paramount Theatre, Glasgow, illustrated in our issue for February 1, were Messrs. Walter Macfarlane & Co.

Church of St. Catherine, Mile Cross.

We are informed that the bricks used in St. Catherine's, Mile Cross, Norwich (Collier's silver-grey facings), were supplied to the builders, Messrs. John Thompson and Sons, through Messrs. A. H. Herbert and Co., Ltd., of Imperial House, Kingsway, W.C.2. This church was illustrated in our last issue.

Stationery Factory, Lambeth.

In connection with the new stationery factory and bookbinding workshops for W. H. Smith and Son (illustrated in our last issue), we understand that the contract for the metal office and factory partitions (as distinct from the lavatory cubicles or partitions) was carried out by Messrs. Sankey-Sheldon (Harris and Sheldon, Ltd.), 46, Cannon-street, E.C.4.

Concrete Building Units.

We are informed that "Dunbrik," the building unit in the size of the standard brick, is shortly to be the subject of an offer for sale of shares. The prospectus will show that Dunbrik, Ltd., own and work an exclusive licence to manufacture "Dunbrik" and "Duntex" roofing tiles, and that the company is already operating in full production five well-equipped works in the Home Counties, the whole output of which, we learn, has been sold for the next twelve months.

Changes of Address.

The General Asphalte Co., Ltd., have removed to new and larger offices at Romney House, Marsham-street, S.W.1. (Tel. : Victoria 2695-6.)

The Glazed Cement Co., Ltd., inform us that on and after February 19 their address will be "Simengla" Works, Harberton-road, Highgate, N.19 (Telephone No. : Archway 2281). They state that the rapid expansion of their business has necessitated the acquisition of a new factory to meet the increased demand for their products and that they will have an up-to-date factory at their new address, replete with modern machinery and appliances, which will enable them to increase their output very materially.

Cleaning Stone.

Messrs. J. Manger and Son, Ltd., of 57, High-street, Kingsland, E.8, write: "It occurs to us that it may be of interest to your readers to hear of a case we have just answered of a well-known contractor in Leamington Spa. He has just been asked about cleaning up stonework on a brick and stone front which is about 20 years old, and thought that our postcard showing the amazing contrast in the paintwork under the dome of St. Paul's before and after it had been cleaned successfully with 'Manger's' sugar soap would help him to get this job. Whilst his inquiry may be for unpainted stonework (he does not say), 'Manger's' is equally as efficient on this, the only precaution necessary being to see that the work is thoroughly rinsed with clean water afterwards should the stonework be of the porous type. 'Manger's' is often used for such by specialist building cleaning contractors. Your readers may remember that it has been tried and highly recommended in connection with cleaning both porous and marble tombstones, and other such work."

Messrs. J. Manger and Son, Ltd., inform us that their sales for 1934 of Manger's "Sugar Soap" again broke the previous high record by a large margin, for the twelfth year running.

NEW BUILDINGS IN SCOTLAND

(*Continued from page* 343.)

Scotland, to erect a branch office at Abercromby-street and London-road.

GLASGOW.—HOUSES.—120 new houses of the flat type are to be built by the Corporation in Ardgay-street, Shettleston. Plans have been passed.

KILMARNOCK. — FACTORY. — Plans were passed for the erection of buildings estimated to cost £45,590 at a sitting of the Dean of Guild Court. The principal petition was lodged by Messrs. Blackwood, Morton & Sons, Ltd., carpet manufacturers, who were granted warrant to erect a carpet factory in Burnside-street, at £40,000. Messrs. John Menzies & Co., Ltd., Rose-street, Edinburgh, were granted a warrant to erect a wholesale warehouse in Church-street and East George-street, at £2,500.

KIRKCALDY.—EXTENSION. — Corporation have a new and extensive scheme for public baths at the Corn Exchange site. Mr. George Duggar, architect, Engineer's Offices, Whites Causeway.

KIRKINTILLOCH.—BUILDING.—The Dumbartonshire C.C. are to acquire ground at Regent-street for a junior instruction building. Mr. J. Weekes, County Architect, College-street, Dumbarton.

MOTHERWELL.—BUILDING.—The Dean of Guild Court has passed plans for the erection in the Meadowhead housing area, Wishaw, of 136 houses at a cost of £41,000. This is the third development in the Meadowhead housing scheme. Messrs. Baxter & Gillon, building contractors, Motherwell, had plans passed for the erection of bungalows in Wellview-drive, Motherwell, at £5,000. Messrs. Scott & Co., building contractors, Motherwell, had sanction granted for cottages at Brae Dale, Hamilton-road, Motherwell, at £2,600, and also at Earnock-avenue, Motherwell, at £1,200.

PANMURE.—CHURCH.—Plans are being prepared by the congregation to erect a new church.

PORTOBELLO.—RECONSTRUCTION. — Plans are in hand for a scheme of reconstruction and additions, etc., at Tower-street. Messrs. Lorimer and Matthew, architect, 17, Great Stuart-street, Edinburgh.

SANQUHAR.—HOUSING.—Mr. Wm. Scott, Inglewood, Sanquhar, has been appointed architect for the new T.C. housing scheme.

STIRLING.—BATH.—The Corporation have plans in hand for new swimming baths. Plans by Mr. A. H. Gowder, M.Inst.C.E., Municipal Buildings.

STORNAWAY.—HOUSES.—The Corporation have a scheme in hand for the erection of council houses. Mr. A. N. Tannahill, Burgh Architect and Surveyor.

WINWICK.—EXTENSIONS.—The Lanarkshire Mental Hospitals Board has decided to carry out extensions at the hospital, at £50,000.

WYGGLETON.—SCHOOL.—Plans are in course of preparation for a new grammar school. Mr. James Miller, architect, 15, Blytheswood-square, Glasgow.

NEW CINEMAS

AYLESBURY.—An option has been granted to a large firm of London cinema proprietors, to acquire a building site in Cambridge-street, Aylesbury, for the erection of a cinema. Plans are being submitted. Mr. G. Farrer, 35, Ember-lane, East Molesey, is connected with the scheme.

BAGDAD.—The Commercial Secretary to H.M. Embassy at Bagdad reports that the owners of a new cinema in the course of construction locally desire to be placed in touch with United Kingdom manufacturers of projectors, sound apparatus and upholstered steel tip-up seating. (Ref. F.Y. 2235, Department of Overseas Trade, 35, Old Queen-street, S.W.1.)

BORDON.—Provincial Cinema and Theatre Co. (Littlehampton), Ltd., propose the reconstruction of the Palace Cinema. Plans are being prepared by Messrs. Leslie H. Kemp and Tasker, A.R.I.B.A., 10, Great James-street, Bedford-Row, W.C.1. No contract yet placed.

GLASGOW.—Scottish Cinema and Variety Theatres, Ltd., 105, St. Vincent-street, Glasgow, propose the erection of additions at their Govan Central Cinema. Plans are by Mr. C. J. McNair, L.R.I.B.A., 112, Bath-street, Glasgow, who will also prepare plans for alterations to the Princess Cinema, Glasgow.

KEYNSHAM.—A cinema to seat 1,000 is to erected in Charlton-road, Keynsham, near Bristol, for Keynsham Picture House, Ltd. Plans are by Mr. E. W. Brock, while the contract has been placed by Mr. T. Jenkins, of Keynsham.

KIRKCALDY.—Alterations to the Opera House Cinema are proposed by Scottish Cinema and Variety Theatres, Ltd., to plans by Mr. C. J. McNair, L.R.I.B.A., 112, Bath-street, Glasgow.

LITTLEHAMPTON. — Messrs. Leslie H. Kemp and Tasker, A.R.I.B.A., 10, St. James's-street, Bedford-row, W.C.1, are to prepare plans for the erection of a cinema to seat 1,200 persons, for Silver Cinemas, Ltd.

REDCAR.—Thompson Enterprises, Ltd., Bank-chambers, Wilson-street, Middlesbrough, have made application to the Licensing Justices for a licence for a cinema to seat 1,037 in Queen-street. Certain amendments are to be made to the plans. Messrs. William and T. R. Milburn, architects, 17, Fawcett-street, Sunderland.

STAFFORD.—Mr. R. Satchwell, L.R.I.B.A., 7, New-street, Birmingham, is preparing plans for the erection of a cinema on Newport-road and Bailey-street, for Mr. W. J. Dudley.

TONBRIDGE.—Tunbridge Wells Entertainments, Ltd., propose the erection of a cinema on a site in Pembury-road.

WALTON-ON-THAMES. — The Capitol Cinema in the High-street is to be enlarged for the owners, Capitol (Walton-on-Thames), Ltd., 1, Albemarle-street, W. Mr. F. C. Mitchell, L.R.I.B.A., 80, George-street, Portman-square, W.1, is the architect.

WANTAGE.—The contract for the erection of the new cinema to seat 600, in Newbury-street, for Mr. M. Beardsley, of the Wantage Cinema, has been placed with Messrs. W. Barnes and Son, 37, Corn-street, Witney, Oxon. The cost is £12,000. The architect is Mr. F. Edward Jones, F.R.I.B.A., 32, Shaftesbury-avenue, W.1.

MOULDED PRODUCTS

Sound Film of Manufacture.

The great strides made by bakelite (one of the synthetic resins or resinoids) in the manufacture of articles formerly made of wood or metal were well exemplified in a sound film, "Bakelite, the Material of Infinite Uses," shown by Bakelite, Ltd., at Bush House on Tuesday. The film illustrates the manufacturing processes involved in the production of bakelite and shows some of its applications. No less remarkable than the variety of applications of the material were the manufacturing processes illustrated. The initial stage in the production of a moulded product is the chemical combination of two colourless liquids, phenol and formaldehyde, to form a synthetic resin or resinoid. This resinoid is similar in appearance to a natural resin, but is essentially different in its physical characteristics. We saw how the resinoid is ground to a fine powder and incorporated with wood meal and a colouring medium. This mixture is compounded between hot rolls—cooled, ground and blended to produce granular moulding material.

Bakelite is, of course, largely used in the electrical trades, but its sphere is rapidly being extended to the building and furnishing trades, laminated steels, door furniture, lamp fittings and furniture being typical examples which were shown by a panoramic display of bakelite articles. Bakelite also is used as a resinoid box for paints, varnishes and lacquers.

Bakelite, Ltd., are to be congratulated on an interesting and illuminating show.

TENDERS

Communications for insertion under this heading should be addressed to "The Editor," and must reach him not later than Tuesday evening.

* Denotes *accepted.*
† Denotes *provisionally accepted.*
‡ Denotes *recommended for acceptance.*
§ Denotes *accepted subject to modifications.*
¶ Denotes *accepted by H.M. Government Departments.*

Aberdeen.—12 bungalows and other offices at Cromwell-road. Mr. P. Scott Sutherland, architect and measurer, 10 Albyn-place :—

Excavation, brick and mason — *J. Gauld, Aberdeen.
Joinery, carpentry and ironmongery — *J. Blake, Aberdeen.
Glazier, painting and decoration—*Gordon & Watt, Aberdeen.
Plumber and sanitary installation, etc.—*G. N. Haden & Son, Ltd., Glasgow.

Aberdeen.—Reconstruction and extension of and to the Windsor Hotel and shops at Bon-Accord-terrace. Mr. T. Scott Sutherland, architect and measurer, 10, Albyn-place :—

Excavation, brick and mason—*Joseph Shirras & Son, Ltd.
Joinery, carpentry and ironmongery—*Calder & Henderson.
Glazier—*Bruce MacKenzie, Ltd.
Plumber work and sanitary fixtures—*A. G. Robertson & Son, Ltd.
Plaster—*James Scott & Son, Ltd.
Slater—*John Durnin.
Steel construction — *George Bisset.
Painter—*Bruce MacKenzie, Ltd.
Roofing asphalt—*Briggs & Co., Ltd.
Electrical installation and fittings — *A. B. Robertson & Son.

(All of Aberdeen.)

Ashton-in-Makerfield.—36 houses on the Glebeland site off Ashton Heath-road, for the U.D.C. Mr. H. Busby, surveyor :—

†R. & J. Bradley, Ashton-in-Makerfield £11,376

Ashton-under-Lyne.—Extension of West End Council school, also heating installation, for the T.C. Mr. G. W. Handforth, Director of Education, 8, Warrington-street. Mr. Percy Howard, A.R.I.B.A., architect, 88, Mosley-street, Manchester. Quantities by the architect :—

Extensions—*T. Warrington, Bennett-street, Hyde.
Heating installation—*H. Taylor, Rowley-street, Hurst, Ashton-under-Lyne.

Atcham.—Extensions at Minsterley Creamery, for Messrs. Wathes, Cattell & Gurden, Ltd., dairymen, 6, Holloway-road, Birmingham. Mr. Marcus O. Type, A.R.I.B.A., architect, 87, Edmund-street, Birmingham :—

*W. Higley Shrewsbury.

(Estimated cost £30,000.)

Ayr.—Reconstruction and additions at Wallacetown school. Mr. William Reid, architect, Wellington-square :—

Excavation, brick and building—
*W. Brown, Ayr £2,332
Plumber work and sanitary fittings—
*J. R. Smith & Sons, Ayr 406
Plaster—
*J. Leggett & Son, Ayr 373
Joinery, carpentry and ironmongery—
*T. Findlay, Mauchline 1,418

Bakewell.—16 new houses at Hathersage, for the R.D.C. :—

*M. J. Gleeson, Ltd., Woodseats £4,790

Belford.—Alterations to casual wards, for the Northumberland P.A.C. Mr. W. W Tasker, County Architect, Newcastle-on-Tyne :—

*T. B. Gregory, Seahouses £1,832 6 8

Blackpool.—Reconstruction of West-street conveniences, for the C.B. :—

*H. Joyce & Sons, Ltd.

Bothal.—Domestic science centre, for the Northumberland E.C. :—

*J. T. Fletcher, Ashington £452 12 6

Bolton.—174 houses on Entwistle-street site, for the T.C. Mr. C. W. Walker, Housing Director, Town Hall :—

*Tarran Industries, Ltd., Ryde-avenue, Hull £48,152

(In lieu of direct labour previously accepted.)

Bridge of Weir.—New clubhouse, for the Old Ranfurly Golf Club. Mr. Will J. B. Wright, architect, 1, Blytheswood-square, Glasgow :—

Excavation, brick and mason and various works—
*Findlay McGeechan.
Electrical installation and fittings — *R. J. Sinclair, Ltd.
Heating engineering installation — *Hugh Twaddle & Son, Ltd., Bridgeton.

Burton-upon-Trent.—Conversion of premises in Cross-street to maternity and child welfare centre, for the T.C. Borough Surveyor :—

*Arthur Holmes & Son, Dallow Bridge, Burton-upon-Trent £539

Cheadle.—12 houses in Queen-street, for the R.D.C. Mr. A. Hancox, surveyor, Bank-street :—

*G. & J. Seddon, Ltd., Little Hulton, near Bolton £3,685
(In lieu of tender withdrawn.)

Colchester.—54 non-parlour type (40 two bedroom and 14 one bedroom) houses on the Old Heath site, for the T.C. :—

Direct Labour £13,310

Colwyn Bay.—Rebuilding branch bank in Conway-road, for the District Bank, Ltd., 15, Spring-gardens, Manchester. Messrs. Jones & Dalrymple, F. & A.R.I.B.A., architects, 178, Oxford-road, Manchester :—

Contractors—*Ashworth Bros., Colwyn Bay.
Masons—*F. M. & H. Nuttall, Ltd., Whitefield.

Colwyn Bay.—Hall, stores and shop in Abergele-road, for the Colwyn Bay Public Hall Co., Ltd. Messrs. J. M. Porter & Co., architects, Estate Offices, Conway-road :—

*J. W. Owen & Hughes, Ltd., Deganwy, near Llandudno.

Cosham.—Messroom at Cosham sewage disposal works, for the Portsmouth T.C. City Engineer :—

Samuel Salter (Portsmouth), Ltd., Portsmouth £910
Frank Bevis, Ltd., Portsmouth 850
E. & A. Sprigings, Portsmouth 828
*L. Hoad, Southsea 817

Coventry.—Construction of the Coventry by-pass road between Windmill Farm, Allesley, and Tollhar End, Willenhall, for the T.C. Mr. E. H. Ford, City Engineer and Surveyor :—

*John Mowlem & Co., Ltd., Pimlico, S.W.1 ..... £160,915

¶Devonport.—Erection and completion of a store and contingent works at Bull Point, for the Civil Engineer-in-Chief's Department, Admiralty :—

F. J. Stanbury, 29, Russell-street, Plymouth.

Dewsbury.—Electrical installation at new housing estates: (*a*) 64 houses at Dawgreen; (*b*) 208 houses at Lee Moor, and (*c*) 108 houses at Heaton Lodge, for the T.C. :—

*Joseph Shepley £1,508 17

Doncaster.—For (*a*) 62 houses on the Wheatley Park estate, and (*b*) 11 houses on the Smith-street site, for the T.C. :—

*O. Weaver, Mexborough—
(*a*) £18,290 0 0
(*b*) 3,115 12 8

Dun Loaghaire.—21 three-roomed houses and 32 four-roomed houses at Sallynoggin, for the T.C. :—

*Joseph Rooney, Balbriggan ... £17,186 16 2

Edinburgh.—Garage, houses, petrol filling station and 11 shops and other works at Milton-road East and Joppa-road. Mr. Thomas Linton, architect, 343, Newhaven-road, Leith :—

*M. W. Trust, Ltd., 3, Charlotte-square, Edinburgh.

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Fraserburgh.—4 houses two-apartment, 60 three-apartment, and 24 four-apartment flatted, for the T.C. Mr. W. F. Hamilton, Burgh Surveyor. Quantities by the Burgh Surveyor :—

Masons—
*Andrew Cheyne, Strichen.
*A. J. Chalmers, New Pitsligo.
Carpenters—
*Carle, May & Co.
*A. Hall & Sons.
Plumbers—
*R. Tindall & Sons, Ltd.
*Ferguson & Co.
*John McNab.
Slaters—
*C. Dickie & Son, Turriff.
*A. Thomson & Son.
Plasterers—
*A. Campbell.
*A. Wiseman & Son.
*W. Macdonald.
Painters—
*Ferguson & Milne, Peterhead.

(Remainder of Fraserburgh.)

Frome.—22 houses in Robins-lane, Summer Hill and Broadway, for the U.D.C. :—

*Building & Public Works Construction Co., Ltd. £6,292

Galloway.—Road work in connection with the further development of the Galloway hydro-electric power scheme :—

*William Binnie & Sons, Ltd., 30, Blenheim-street, Springburn ..... £30,000 to £40,000

Gatley.—Erection of Gatley Council school, for the Cheshire C.C. Mr. F. Anstead Browne, F.R.I.B.A., County Architect, The Castle, Chester :—

*Vernon & Smith, Hazel-grove, Stockport £6,783

Glasgow.—Reconstruction and additions to foundry and works at Shettleston-road. Mr. T. S. Cordiner, architect and measurer, 261, West George-street :—

Hendry & Co., 749, Shettleston-road, Glasgow.

Glasgow.—332 houses on the Blackhall housing site, for the T.C. Mr. William McNab, Housing Architect, Director's Office, Trongate :—

Excavation, brick and mason—
*T. Anderson, Hamilton £33,222 18 11
Carpentry, joinery and ironmongery—
*W. Vernal, Renfrew 25,468 9 10
Slater—
*A. C. Whyte & Co., Ltd., Carmyle 8,267 2 1
Plumber work and sanitary engineering—
*R. S. Renfrew & Son, Ltd., Glasgow 15,600 0 0
Plaster—
*H. Bathgate, Dennistoun 4,339 15 6
Glazier—
*J. Wilson & Son, Glasgow 609 12 1
Iron railings and gates—
*W. Prentice, Larkhall 1,307 8 3

Greenock.—Reconstruction and a new arcade, for Messrs. Shannon's, Ltd. Mr. James Agnew, architect, The Glebe, Greenock :—

Demolition, brick and mason—*J. & R. Kirk, Ltd., Greenock.
Joinery, carpentry, ironmongery, cabinet making, etc. — J. Agnew & Sons, Ltd., Greenock.
Glazing—*Grieve, Graham & Co., Greenock.

Halstead.—Slating 28 houses being erected, for the U.D.C. :—

*Dawber, Townsley £560

Haltwhistle.—Alterations to the casual wards, for the Northumberland P.A.C. Mr. W. W. Tasker, County Architect, County Hall, Newcastle-on-Tyne :—

*W. Watson, Haltwhistle £1,555

Harrow.—Conversion of existing buildings into nurses' bedrooms at the Harrow isolation hospital, for the U.D.C. :—

*Edwardson, Ltd., Pinner £379

¶Holbeach.—Flashing light at Holbeach Range, for H.M. Air Ministry :—

*Gas Accumulator Co., Ltd., Beacon Works, Brentford.

Horsforth.—36 houses and six bungalows at Cragg Hill, for the U.D.C. :—

*Wm. Thompson & Sons, Ltd.

Horwich.—52 houses on the old Lord's estate, for the U.D.C. :—

*Direct Labour £15,000

Kettering.—Showrooms and offices, in London-road, for Messrs. Wallis' Garage Co., Ltd., London-road :—

*J. Neal, Ltd., Kettering.

Kirkby Lonsdale.—Pump house and laying water mains at the waterworks, for the U.D.C. Mr. W. E. R. Thomas, surveyor :—

*F. Cornes, Kirkby Lonsdale £380

Lanarkshire.—Housing scheme at Corehouse and Hawksland-road, Kirkfield-bank site, for the C.C. Mr. Peter C. Smith, County Housing Architect, Clyesdale-street, Hamilton :—

Excavation, brick and mason—
*Pope & Co., Cleland, Lanark £1,007 0 2
Joinery, carpentry and ironmongery—
*David Purdie & Sons, Ltd., Lanark 778 13 7
Slater—
*Samuel Holmes, Rutherglen 222 13 7
Plumber work and sanitary fittings—
*John Laing & Sons, Wishaw 308 1 7

Leeds.—Elementary (mixed) Council school on the Wykebeck housing estate, off the York and Selby-road, for the E.C. Mr. F. Broadbent, architect :—

‡Dunhill Bros., Ltd.

Leeds.—New wing to the nurses' quarters of the Leeds Hospital for Women. Messrs. Chorley, Gribbon & Foggitt, architects, Park-place :—

*Wm. Irwin & Co., Ltd.

Leominster.—Interior decoration of 27 houses in Caswell-crescent, for the T.C. :—

‡Evans & Son £170

Leven.—Houses, for the T.C. :—

Sixteen 3-roomed houses—Mr. L. A. Rolland, architect, Leven :—
Mason work—
*R. Terras, jun., East Wemyss ... £1,452 12 6
Joiner work—
*David Dewar, Methill 1,081 4 0
Plumber work—
*Thomas Stewart, Methil 529 2 4
Plaster work—
*T. B. Stobie & Son, Buckhaven ... 360 6 4
Slater work—
*T. B. Stobie & Son 374 15 6
Eight 4-roomed houses—Mr. A. D. Haxton, architect, Leven :—
Mason work—
*R. Durie & Son, Methil 789 12 6
Joiner work—
*G. P. M'Intosh, Leven 576 8 7
Plumber work—
*Thomas Stewart 273 9 4
Plaster work—
*D. T. Smith, Leven 218 5 4
Slater work—
*D. T. Smith 214 4 8
Eight 3-roomed houses—Mr. A. D. Haxton, architect :—
Mason work—
*R. Durie & Son 693 15 4
Joiner work—
*David Dewar 541 14 0
Plumber work—
*Thomas Stewart 264 11 2
Plaster work—
*T. B. Stobie & Son 180 3 2
Slater work—
*T. B. Stobie & Son 187 7 9
Twelve 2-roomed houses. Mr. C. S. Welch, architect, Leven—
Mason work—
*R. Durie & Son 942 8 3
Joiner work—
*David Dewar 675 0 0
Plumber work—
*Thomas Stewart 391 12 6
Plaster work—
*D. T. Smith 232 12 3
Slater work—
*D. T. Smith 251 6 9
Four 3-roomed houses—Mr. C. S. Welch, architect—
Mason work—
*R. Durie & Son 361 12 9
Joiner work—
*David Dewar 270 6 0
Plumber work—
*Thomas Stewart 132 5 7

Lincoln.—Alterations at Louth Heathfield-road schools and Covenham Council schools, for the C.C. Mr. P. W. Birkett, County Architect :—

*J. Tuxworth & Son, Louth.

Liverpool.—Factory in Fleet-street, for Messrs. C. W. Field & Co., Ltd., 92, Wood-street. Mr. S. B. Howard, A.R.I.B.A., architect, Royal Liver-buildings :—

*W. A. Barnes & Son (Builders), Ltd., Liverpool.

London.—115 dwellings on the Macaulay-road site, Clapham, for the L.C.C. :—

G. E. Wallis & Sons, Ltd., Maidstone £43,334
Unit Construction Co., Ltd. 42,499
R. J. Rowley, Ltd. 42,380
R. J. Barwick, Dover 41,475
C. Miskin & Sons, Ltd., St. Albans ... 41,345
Holliday & Greenwood, Ltd. 41,208
Leslie & Co., Ltd. 40,792
George Parker & Sons, Ltd. 40,537
Albert Monk 40,060
John Laing & Son, Ltd. 39,849
A. T. Rowley (London), Ltd. 39,834
Gee, Walker & Slater, Ltd. 37,650
Rowley Bros., Ltd. 37,312
Henry Boot & Sons, Ltd. 36,999
*W. H. Gaze & Sons, Ltd., 23, High-street, Kingston-on-Thames 36,953
(Architect's estimate: £38,721.)
(Remainder of London.)

¶**London.**—The following works contracts have been placed by the War Office during the week ended February 7 :—

Aldershot—cookhouse, etc.—J. B. Edwards & Co. (Whyteleafe), Ltd., London, W.
Woolwich—periodical painting—Fields, Ltd., Reading.
Halifax—artificers' work—Adam & Lorenz, Halifax.
Kingston—improvements to married quarters—H. Lacey & Sons, Luton.
Bury St. Edmunds—artificers' work—E. F. Andrews, Felixstowe.
Canterbury—garage—G. Lewis & Sons (Dover), Ltd., Dover.
Dover—drainage of recreation ground—W. H. Gaze & Son, Ltd., Kingston-on-Thames.
Fort George—renewal of water mains—William Tawse, Ltd., Aberdeen.

¶**London.**—Tenders accepted by H.M.O.W. for the week ended February 7 :—

Chelsea Branch Post Office—alterations—Soole & Son, Ltd., Dunstable Works, Richmond.
Stores, steel card index cabinets—Roneo, Ltd., 17, Southampton-row, W.C.1.
Oxford Telephone Repeater Station—erection—W. A. James & Sons, Station Works, Maidenhead.
Salisbury Head Post Office and Telephone Exchange—extension and erection of garage—E. Linzey & Son, Rolleston-street, Salisbury.
Tables, dining—Wake & Dean, Ltd., Yatton, near Bristol.
South Western District Office—alterations—F. R. Hipperson & Son, Ltd., 6, Broad Street-place, E.C.2.
Cambridge Sorting Office and Garage—wrought-iron railings and gate and bronze lamps—A. Cadman, 8, Princes-street, S.W.1.
Long lockers—Milners' Safe Co., Ltd., 12-13, Newgate-street, E.C.1.
Colchester Head Post Office—steel casements—F. Braby & Co., Ltd., Petershill-road, Glasgow.
Houses of Parliament, Speaker's Residence—stone carving work—E. J. & A. T. Bradford, 62, Borough-road, S.E.1.

London.—Wrought-iron fencing and gates on the Putney Bridge frontage, for the Fulham B.C. :—

Walter Macfarlane & Co. £272 6 6
Bayliss, Jones & Bayliss, Ltd. ... 191 1 3
Clark, Hunt & Co., Ltd. 189 15 0
T. W. Palmer & Co. 182 16 0
A. & J. Main & Co., Ltd. (exclusive of fixing) 176 16 0
D. Rowell & Co., Ltd. 176 12 1
Dorman, Long & Co., Ltd. 172 3 6
Alternative offers and subject to work being carried out before the completion of the bridge works 157 16 0
Hill & Smith, Ltd. ..... { 142 14 10
Alternative offers ..... { *181 10 8

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London.—Redecoration at the gas meter testing office and gas examiners' office, City Green-yard, alteration of the loading dock and the renewal of the entrance canopy at the gas meter testing office, for the City Corporation :—

W. G. Larke & Sons £249 0 0
C. A. Lawrence & Son 222 3 8
Stapleton & Sons, Ltd. 215 0 0
Courtney & Fairbairn, Ltd. 211 0 0
Batt & Hart, Ltd. 207 10 0
*F. J. Howard 138 0 0

Luton.—14 houses at Totternhoe, for the U.D.C. :—

*H. Fidler & Sons, Ltd., Luton £4,368

Luton.—Electric wiring at Bidwell-hill, for the U.D.C. :—

*R. J. Stearn & Co., Luton £102 2 10

Luton.—Installation of piling to foundations in connection with the open-air swimming pool, for the T.C. :—

*John Gill (Contractors), Ltd., London £1,372 18

Manchester.—Rebuilding of premises damaged by fire, for Messrs. C. & A. Modes, Ltd. Messrs. North, Robin & Wilsdon, architects, Townsend House, Greycoat-place, London, S.W.1 :—

*J. Gerrard & Sons, Ltd.

Manchester.—Branch bank in Manchester-road, Seymour-grove, Chorlton-cum-Hardy, for the Union Bank of Manchester, Ltd., York-street. Messrs. T. A. Fitton & Son, architects, 19a, Corporation-street :—

*G. Macfarlane & Son, Ltd., Manchester.

Marlow.—38 houses, in Seymour Court-road, for the U.D.C. :—

*Canning & Sergeant.

Middlesbrough.—Extensions to the works, for Messrs. Sadler & Co. :—

*Clarke, Chapman & Co., Gateshead.

Middlesbrough.—Science rooms at the Marton-grove Council school, for the E.C. Mr. S. E. Burgess, Borough Engineer :—

*J. S. Earnshaw, Ltd., Castlegate, Stockton-on-Tees.

Middleton.—87 houses and 18 bungalows on Boarshaw and 64 houses at Rhodes, for the T.C. Mr. J. Pollard, A.R.I.B.A., Borough Architect :—

‡J. Hobson & Son, Nottingham.

Middleton.—Primary school for 400 scholars at Boarshaw, for the T.C. Messrs. Naylor, Sale & Widdows, F. & L.R.I.B.A., architects, St. Mary's-chambers, St. Mary's-gate, Derby :—

†J. Hartley, Chadderton, near Oldham £11,230
(In lieu of tender withdrawn.)

Millneuk.—New bridge. Mr. William Chapman, engineer, Feckford-street, Hamilton :—

*Murdoch MacKenzie, Ltd., Wilson-street, Hamilton.

Monkton.—Houses at Monkton housing site. Mr. William Reid, architect, Wellington-square, Ayr :—

Excavation, brick and mason—*T. McWhirter, Prestwick.
Plumber work and sanitary fittings—*W. Dunlop & Sons, Irvine.
Steel casements windows, etc.—*McLean & Co., Linwood.
Painter—*G. Paterson, Irvine.
Joinery, carpentry and ironmongery — *T. Wilson, Tarbolton.
Glazier—*J. Thom, Ayr.
Slater work and roughcasting, etc. — *D. Hutchison, Irvine.
Electrical engineering and fittings, etc.—*Darroch & Elspie, Glasgow.
Plaster—*J. Lamgobrae, Maybole.

Nantwich.—Extensions to club house, in Gresty-road, for the Crewe Permanent Way Cricket Club members. Mr. C. B. Maltby, architect, 243, Nantwich-road, Crewe :—

*J. T. Gresty & Sons, Ltd., Willaston, near Nantwich.

Navan.—36 houses at Gibney's Field, for the U.D.C. :—

*—. McEntaggart, Nobber £9,216

Newcastle-on-Tyne.—Rebuilding of premises in Northumberland-street. Mr. J. N. Fatkin, architect, Bigg Market :—

*T. Clements & Son, Selborne-gardens, Newcastle.

Northam (Devon).—20 houses in Torridge-road, Appledore, for the U.D.C. Mr. W. G. Champion, surveyor. Quantities by the surveyor :—

A. F. Beer, Bideford £6,920
A. Beer, Bideford 6,400
H. Branch, Instow 6,450
Universal Housing, Rickmansworth ... 6,423
Dennis & Son, Braunton 5,965
*W. Badcock & Son, Castle-street, Northam 6,066

Nottingham.—144 houses on vacant sites in city, for the T.C. Mr. E. Phillips, Housing Architect, Exchange Buildings East :—

*H. Arnold & Sons, Ltd., Doncaster.

Oakham.—New Sunday school and alterations to the Methodist Church, for the Methodist Union. Mr. H. Kelsall Armitage, architect, 8, Blenheim-street, London, W.1. Quantities by Mr. T. Sumner Smith, F.S.I., Clifton Lodge, Victoria-park, Manchester:—

*J. S. Clark, Langham, Oakham.

Pensby.—Primary school for the Cheshire C.C. Mr. F. Anstead Browne, F.R.I.B.A., County Architect, The Castle, Chester:—

*Alun Edwards, Ltd., Cefn-y-Bedd, near Wrexham £7,997

Pontefract.—102 houses on the Monkhill housing estate, for the Corporation. Messrs. Pennington, Hustler & Taylor, architects, Ropergate, Pontefract:—

*Thomson & Dixon, Ltd., Doncaster £51,845

Pwllheli.—For fixing sound-proof roof to concert hall, for the T.C.:—

*Hugh Davies £487 10

Reading.—New Corn Exchange at the Cattle Market, for the T.C.:—

*W. T. Nicholls, Ltd., Gloucester ... £11,489

Rhos-on-Sea.—Extensions to the Priory Private Hotel, Promenade. Mr. William Swann, L.R.I.B.A., architect, St. Peter's-chambers, Stockport:

*Mark Lane & Co., Ltd., Stockport.

St. Helens.—Extensions to works, for Messrs. Beecham's Pills, Ltd., Westfield-street. Messrs. E. G. Huggins & W. R. Hood, architects, 62, Oxford-street, London, 1:—

*R. Stanley Ellison, St. Helens, Lancs.

Scunthorpe.—For (*a*) 30 houses, and (*b*) 20 houses on the Crosby housing site, for the U.D.C. Mr. W. Farrar, Surveyor:—

(*a*) *Green & Mackender, Ashby, Lincs.
(*b*) *J. H. Metcalf Bros., Doncaster.

Sheffield.—Transformer sub-station in Saxon-road, Heeley, for the T.C. General Manager:—

*M. J. Gleeson, Ltd. £1,269

Sheffield.—Pumping station on the Arbourthorne estate, for the T.C. City Architect:—

*T. Roper & Sons, Ltd. £1,061

South Shields.—Restoring the Methodist Church after fire:—

*Henderson Bros., Smith-street, Tyne Dock, South Shields.

Stoke-on-Trent.—Pithead baths at Park Hall Colliery, near Longton, for the Miners' Welfare Committee, Romney House, Marsham-street, Westminster, S.W.1. Mr. J. D. Forshaw, architect:—

*P. Pemberton, Church Works, Tunstall, Stoke-on-Trent.

Stretford.—Extensions to works, for Messrs. Switchgear & Cowan, Ltd., engineers, Elsinore-road, Old Trafford. Messrs. Campbell Jones, Sons & Smithers, FF.R.I.B.A., architects, 9, Dowgate-hill, Cannon-street, London, E.C.4:—

*Russell Building & Contracting Co., Ltd., Manchester.

Sunderland.—Installation of an electric lift at the Town Hall, for the T.C.:—

*Pickering, Stockton £326 10 6

Unsworth.—Development of land at Manchester-road providing for erection of 1,500 "smokeless" houses, for the Sunnybank Estate Co., 31, King-street West, Manchester. Mr. Peter Cummings, A.R.I.B.A., architect, 27, King-street West, Manchester:—

*A. Kershaw, Manchester.

Whitby.—106 houses, for the U.D.C.:—

*W. Thompson, Northallerton.

Wincanton.—8 houses at Bruton, for the R.D.C.:—

†Hobbs, Bruton £2,408 12

Winwick.—40 houses for staff of Winwick Mental Hospital, for the Lancashire County Committee for Mental Defectives. Messrs. Richard Owens & Son, architects, Westminster-chambers, 3, Crosshall-street, Liverpool:—

*Leyland Construction Co., Ltd., Leyland, near Preston.

Yeovil.—129 new houses on the Westfield site, for the T.C.:—

*Tovey & Son £38,000

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